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Service

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Meat and Poultry Inspection, 1981

Report of the Secretary of Agriculture to the U. S. Congress



Preface

In 1906, President Theodore Roosevelt signed the Meat Inspection Act. The law assured consumers that meat produced in America came from healthy animals that were slaughtered and prepared under sanitary conditions. Federal poultry inspection was formalized in 1957, and a decade later, both meat and poultry inspection were significantly strengthened by amendments to the laws. In 1981, the U.S. Department of Agriculture (USDA) commemorated the Meat Inspection Act with a 75th anniversary celebration.

Today, USDA's Food Safety and Inspection Service (FSIS) is responsible for administering a comprehensive system of inspection laws. In carrying out its mission, FSIS strives to maintain a safe, wholesome, and properly labeled food supply at the least possible cost. The Agency's actions and accomplishments during 1981 reflect its commitment to that goal. This report summarizes domestic meat and poultry inspection, foreign inspection program review, and related FSIS activities in the past year.

The list of plants certified to export to the United States is being presented to Congress as an addendum to this publication. It is available from FSIS upon request.

In this publication, information about domestic inspection is presented on a fiscal year basis to complement the congressional budget process. Information on review of foreign inspection systems is presented on a calendar year basis, as required by law. The report is organized as follows:

Part I describes FSIS and its responsibilities. It also describes the

organizational units involved in meat and poultry inspection and related functions, and it shows the interdependence of these units.

Part II statistically summarizes domestic inspection and related activities for fiscal year 1981 (October 1, 1980, through September 30, 1981).

Part III statistically summarizes FSIS review of foreign inspection systems and related activities for calendar year 1981.

Part IV describes Agency actions taken to improve the efficiency and cost-effectiveness of inspection and related functions, and actions on issues of public concern.

Readers may also wish to examine the **Food Safety and Inspection Service Program Plan for Fiscal Year 1982**, which describes the functions and planned activities for fiscal year 1982. The **Plan** may be requested from the Policy and Program Planning Staff, Food Safety and Inspection Service, U.S. Department of Agriculture, Room 667 Presidential Building, 6525 Belcrest Road, Hyattsville, MD 20782.

Questions about this report or about FSIS may be directed to: Food Safety and Inspection Service, U.S. Department of Agriculture, Washington, D.C. 20250.

This annual report to the Committee on Agriculture of the U.S. House of Representatives and to the Committee on Agriculture, Nutrition, and Forestry of the U.S. Senate is submitted as required by: sections 301(c)(4) and 20(e) of the Federal Meat Inspection Act, as amended (21 U.S.C. 661 and 21 U.S.C. 620); and sections 27 and 5(c)(4) of the Poultry Products Inspection Act, as amended (21 U.S.C. 470 and 21 U.S.C. 454).

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Food Safety and Inspection Service Organizational Structure



Part I : Organization and Responsibilities

Food Safety and Inspection Service

In June 1981, the Food Safety and Quality Service (FSQS) was transferred to the jurisdiction of the Assistant Secretary for Marketing and Inspection Services as part of a general reorganization of the Department. The commodity services functions of the Agency were returned to the Agricultural Marketing Service (AMS), and FSQS was renamed the Food Safety and Inspection Service (FSIS). FSIS continues to be responsible for assuring that meat and poultry products moving in interstate and foreign commerce for use as human food are safe, wholesome, and properly labeled. To enhance efficiency, the Agency has been realigned into four major components: Meat and Poultry Inspection Operations; Meat and Poultry Inspection Technical Services; Science; and Administrative Management. Each of these programs is headed by a Deputy Administrator who reports to the Administrator of FSIS.

This report encompasses the functions of FSIS, which carries out the Department's task of maintaining and enforcing uniform national standards for meat and poultry inspection. These activities are carried out under the authority of the Federal Meat Inspection Act, the Poultry Products Inspection Act, and other laws. These laws are directed at assuring that meat and poultry products sold for human food are safe, wholesome, and accurately labeled, whether produced inside or outside the United States. The laws also protect producers by ensuring that no one gains an unfair economic advantage from putting unwholesome or misbranded products on the market.

Because this report summarizes meat and poultry inspection, review of foreign inspection systems, and related activities, it focuses on the organizational units most directly involved in these activities: Meat and Poultry Inspection Operations; Meat and Poultry Inspection Technical Services; Science; the Regulations Office; and the Review and Evaluation Staff.

Although organizational units without direct involvement in meat and poultry inspection are not discussed, all units support one another in carrying out the work of FSIS, as illustrated in the Agency organizational chart. In addition, FSIS interacts with other agencies within the Department, such as the Agricultural Research Service, the Animal and Plant Health Inspection Service, the Economic Research Service, and the Statistical Reporting Service. FSIS also maintains relationships with other Federal agencies having roles in food safety assurance, notably the Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA).

Meat and Poultry Inspection Operations (MPIO)

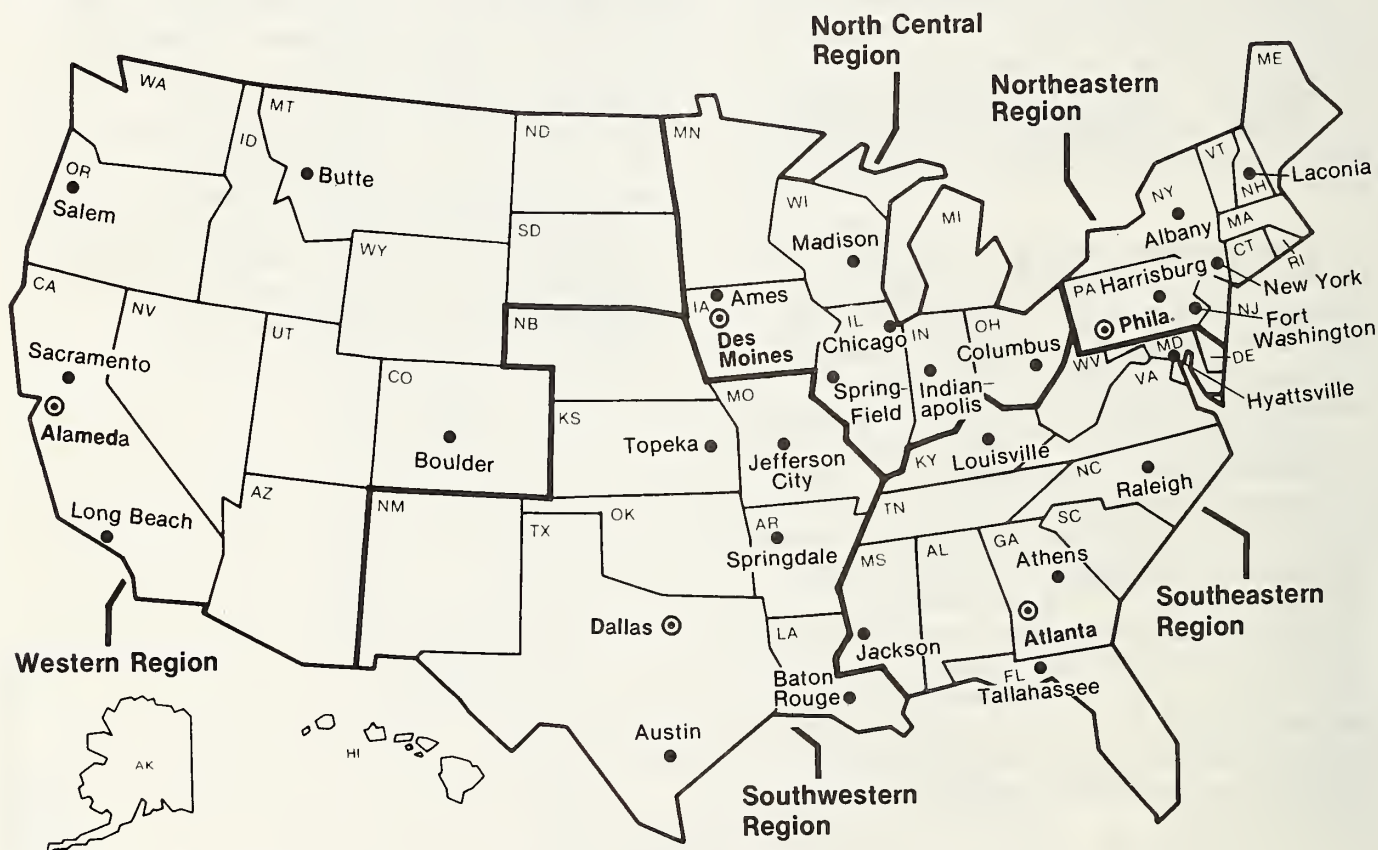
Meat and Poultry Inspection Operations (MPIO) is responsible for applying uniform national standards for meat and poultry inspection in order to assure safe, wholesome, and accurately labeled products. Only federally inspected meat and poultry plants may sell their products in interstate (across State boundaries) and foreign commerce.

MPIO administers Federal-State cooperative inspection programs and reviews State inspection programs. States with approved inspection programs must enforce requirements at least equal to those of the Federal system. State-inspected plants may

sell their products only within the boundaries of that State, that is, intrastate.

MPIO also has jurisdiction over review and enforcement activities designed to assure that both domestic and foreign meat and poultry operations are being carried out in a manner that is consistent with established legal and regulatory standards. MPIO carries out systematic nationwide monitoring of businesses engaged in interstate food marketing and distribution, reviews of foreign meat and poultry inspection systems, and activities to correlate the import inspection effort with U.S. standards.

Figure 1
Meat and Poultry Inspection Regions and Area Offices



⊙ Regional Headquarters

● Area Office

Note: Area Office also in San Juan, Puerto Rico for Puerto Rico and the U.S. Virgin Islands. Area Office in Salem, Oregon services; Alaska, Hawaii, Guam, and America Samoa.

The Deputy Administrator for MPIO directs the activities of Inspection Operations, Compliance and Staff Operations, and the Program Management Support Staff. Also, through the Deputy Administrator's office, direction is provided to the Veterinary Attache to the European Economic Community (EEC).

Inspection Operations

Inspection Operations is responsible for inspection in plants that sell meat and poultry in interstate and foreign commerce. In addition, Inspection Operations monitors product labels for accuracy, facilities and individuals for compliance with legal orders, and State inspection programs for standards equal to those of Federal inspection. These activities are carried out by a network of five regional offices, subordinate areas, and inspection circuits. The Assistant Deputy Administrator for Inspection Operations coordinates management of the MPIO program activities for Regional Operations, the Federal-State Relations Staff, Export Coordination Staff, and Emergency Program Staff.

The Director of **Regional Operations** administers MPIO inspection activities through five regional offices, each managed by a regional director. Each region, as shown in Figure 1, includes several subordinate area offices, each managed by an area supervisor. Each area includes several inspection circuits; each circuit supervisor guides and supervises the inspectors-in-charge of the plants within a circuit.

Each plant inspector-in-charge guides and supervises the inspectors within that plant. The majority of the inspection workload is borne by field employees--the work force of food inspectors and veterinarians who actually perform inspection in meat and poultry slaughtering and processing plants.

The term "inspection" encompasses several functions: (1) the inspection of plant facilities and equipment to assure that they are sanitary and comply with regulations; (2) the inspection of red meat animals (cattle, sheep, swine, goats, horses, and other equines) and domesticated poultry (chickens, ducks, geese, turkeys, and guineas) before slaughter to assure that detectable diseases or other abnormalities are found (ante-mortem inspection); (3) the inspection of the handling and slaughter of livestock to assure that the animals are handled and slaughtered humanely; (4) the inspection of carcasses and parts after slaughter (post-mortem inspection) and the taking of samples for laboratory analyses; (5) the inspection of processing operations to assure that approved procedures are followed, and that products contain only wholesome and approved ingredients in approved formulations; (6) the inspection of finished meat and poultry products to assure that they have been packaged, marked, and labeled properly; and (7) the control of condemned (unwholesome) or inedible products (those declared inedible for human consumption by law and regulation) to assure that these products do not enter human food channels.

This coordinated yet decentralized field structure strengthens program "correlation," that is, a shared understanding and uniform application of inspection requirements. It also encourages as many inspection decisions as possible to be made at the inplant level.

The **Federal-State Relations** staff, supporting the inspection force, seeks to strengthen Federal-State cooperation and the maintenance of effective State programs. It provides technical assistance and direction to those State governments conducting inspection programs for meat and poultry products that will be sold only intrastate. The Department may provide up to 50 percent of the costs of operating a State inspection program from appropriated funds, so long as the State maintains an inspection program that is at least equal to the Federal system in preventing distribution of adulterated or mislabeled products.

To determine the continuing adequacy of State programs, the Federal-State Relations Staff periodically reviews State laws, regulations, appropriations, staffing, and enforcement. The unit also determines a statistically selected sample of State plants to be reviewed each quarter by circuit supervisors as a check on the effectiveness of inspection. If a State fails to effectively enforce "at least equal to" requirements, the Secretary of Agriculture is required to "designate" the State for Federal inspection. If this occurs, all State-inspected meat and poultry plants in that State must apply for Federal inspection or lose the authority to sell their products in either intrastate or interstate commerce. Most designations have resulted from the decision of the governor or State legislature to discontinue the inspection system, often for financial reasons.

The Staff works to strengthen Federal-State cooperative inspection arrangements, such as Talmadge-Aiken agreements. Under these agreements Federal inspection is carried out by State-paid, but federally trained, employees. The Staff also coordinates policy interpretation for reviewing operations that are exempt from routine inspection.

The Staff is responsible for providing statistics on injuries and accidents within Inspection Operations. In addition, the Staff coordinates training for all MPIO employees regarding on-the-job accident prevention procedures and safe working practices.

The **Export Coordination Staff** provides assistance to the U.S. meat and poultry industry in meeting the exporting requirements of foreign markets. The Staff identifies and analyzes foreign inspection requirements in terms of comparability with U.S. standards and procedures. Information on foreign requirements is disseminated to inspection personnel and to potential exporting firms; interpretation of foreign standards is provided to FSIS personnel, individual establishments, and industry organizations as a means of facilitating the export of U.S. products. The Staff also is responsible for coordinating and evaluating the export certification program through periodic reviews of field export procedures.

The **Emergency Program Staff** assesses the significance of food contamination incidents and coordinates the FSIS actions taken in response to residue, microbiological, and other contamination problems that represent potentially serious, widespread hazards to human health and the environment. The responsibilities of FSIS in serious contamination incidents are to locate and retrieve contaminated products already distributed, prevent further distribution of adulterated products, and notify Federal, State, and local health authorities with responsibilities for protecting health and the environment. The Staff coordinates these activities and, when appropriate, initiates the Contamination Response System. This interagency control system is described in part IV of this report.

The Staff participates in developing agency policy and procedures for preventing contamination incidents, educating producers and employees, and controlling contamination problems in an appropriate, expeditious, and consistent manner.

Compliance and Staff Operations

Compliance and Staff Operations is responsible for review and enforcement activities designed to assure that domestic and foreign meat and poultry operations are carried out consistent with established legal and regulatory standards. Regarding domestic product, these activities include periodic reviews and special studies, and the systematic nationwide monitoring for compliance of businesses engaged in interstate food marketing and distribution. Compliance and Staff Operations also reviews foreign meat and poultry inspection systems, and correlates the U.S. import inspection program so that inspection requirements are applied uniformly at all ports of entry. The Assistant Deputy Administrator for Compliance and Staff Operations coordinates management of the MPIO program activities for the Compliance Division and the Foreign Programs Division.

The **Compliance Division** provides the primary regulatory control over businesses engaged in the transportation, storage, and distribution of meat and poultry products after leaving the federally inspected establishment. The Division also has the authority to act when violations occur inside federally inspected plants.

Many thousands of businesses are involved in some aspect of the meat and poultry industry. These firms include wholesalers, distributors, warehouses, salvagers, renderers, transporters, animal food manufacturers, and others. A nationwide network of about 60 Compliance officers review these firms and also provides backup assistance when inspection officials become aware of a need to check products which are in commerce.

Compliance reviews have three purposes: (1) controlling adulterated or misbranded products so that they do not enter consumer food channels; (2) educating members of the regulated industry and consumers about requirements; and (3) detecting violations and documenting evidence for any necessary administrative or legal action.

Detention is the primary means of controlling hazardous or fraudulent products outside inspected plants. By law, detentions are effective only up to 20 days. During this period, sale or further distribution is prohibited. If the owner does not voluntarily correct the problem or destroy the product for use as human food within 20 days, FSIS may request court seizure of the product. Occasionally, products suspected of being hazardous are widely distributed, and recall by the firm is necessary. The Division monitors effectiveness of the recall by providing advice to the firm, examining distribution records, conducting spot-checks at distribution points, and standing ready to detain products if the recall is not effective.

When a violation of law has occurred, and after the product is under control, the facts of the incident are collected into a case file that will support any regulatory action taken by the FSIS. The case is then reviewed at headquarters to select the appropriate regulatory action. Regulatory actions include warning letters, injunctions, criminal prosecution, and formal administrative procedures for withdrawal of inspection services. Compliance officers also interact with other Federal, State, and local agencies engaged in food safety. Contacts with key industry people and consumer complaints often disclose violations.

Another important function of the Compliance Division is helping monitor the overall effectiveness of inspection programs and procedures by observing products in distribution and marketing channels and reviewing their labels. Irregularities are reported to program managers.

Pet food processing firms and related businesses are subject to intermittent, unannounced reviews by Compliance officers. Their labeling and denaturing practices are monitored, and they are checked for compliance with registration and recordkeeping requirements. This monitoring prevents diversion of unacceptable products into human food channels -- protecting consumers while saving court costs and unburdening the pet food industry of more restrictive forms of control.

The Foreign Programs Division, supporting the inspection force, strengthens the Agency's assurance that imported meat and poultry products are safe, wholesome, and accurately labeled. The Division develops standards for import inspection, which Federal inspectors apply to products entering the United States. It encourages the maintenance of effective foreign inspection systems. It also develops standards for export inspection and voluntary certification that exported products satisfy requirements of the importing country.

Only meat and poultry products prepared at certified plants in eligible countries may enter the United States. To be eligible, a country must impose inspection requirements at least equal to those imposed on U.S. plants. One measure of effectiveness is a country's laws and regulations, which are evaluated by the Foreign Programs Division. In addition, 20 veterinary medical officers with considerable experience in the domestic meat inspection system conduct periodic onsite reviews of certified foreign plants to assure that the same standards of inspection are enforced as in federally inspected U.S. plants. Ten of these officers are stationed in countries exporting in large volume to the United States: two in Australia; one each in Canada, Costa Rica, Denmark, Mexico, the Netherlands, New Zealand, Uruguay, and West Germany. The remaining reviewers are stationed in Washington, D.C., and travel to assigned countries as scheduled.

The frequency of onsite review is determined by plant size, nature and complexity of operations, and anticipated volume of exports to the United States. Plants that export large volumes or those that are of special concern are reviewed at least four times annually; other certified plants are reviewed at least once a year. Detailed schedules for foreign plant reviews are arranged with the officials of foreign governments by the agricultural attaches at U.S. embassies. Although visits are announced, the Foreign Programs officers are trained to consider this factor when making evaluations. They conduct independent, indepth surveys of every feature requiring inspection, checking the same items reviewed by supervisory inspectors in U.S. plants. Reviewers are accompanied by representatives of the foreign inspection service, and the two parties may freely exchange technical information.

Foreign Programs officers made 2,257 reviews of certified plants in 1981. The data of each review is reported in the listing of certified plants, contained in an addendum to this report. This data does not include several supervisory visits to foreign plants made by the Director and Assistant Director of the Foreign Programs Division.

The action taken by the Administrator of FSIS when deficiencies are reported depends both on the nature of the deficiencies and on the foreign government's response to them. If no health hazard is involved and the particular deficiency can and will be corrected shortly, shipment of products is not usually interrupted. However, in cases of serious deficiencies or when previously requested corrections have not been made, the Administrator may remove the eligibility of the deficient plant or plants to export to the United States. If the Administrator determines that the problem is systemwide, the export authorization may be removed from all certified plants in the system; or, if more appropriate, an embargo may be

imposed on products from that country. These requirements would be effective until the Administrator was satisfied that standards comparable to U.S. requirements were again being enforced.

The Administrator is obligated to inform officials of foreign countries in writing of adverse findings, any restrictive actions required by U.S. law, and conditions established for maintaining or restoring export eligibility. However, most foreign officials do not wait for formal notification before taking appropriate remedial action.

The Division verifies that corrective measures necessary to maintain or restore export eligibility have been taken. In some cases, the Division informs foreign officials of the application of technical requirements to a specific situation or the need to replace marginally acceptable facilities and practices with improved equipment and techniques. In other cases, the Division suggests adjustments in management practices that would assure the foreign inspection system of more effective and reliable plant performance.

The **Veterinary Attache** is responsible for the onsite presentation of the United States perspective and position on matters of mutual concern to FSIS regulatory officials and those of the EEC and its member States. In addition, the Veterinary Attache provides broad veterinary expertise for the U.S. diplomatic mission to the EEC, thus establishing a sound technical foundation for the consideration and resolution of issues of interest. The Veterinary Attache is also responsible for communication to and from FSIS on matters between the parties.

Meat and Poultry Inspection Technical Services (MPITS)

Meat and Poultry Inspection Technical Services (MPITS) is responsible for a broad range of functions in support of the inspection program. This

organizational unit performs much of the developmental and experimental work that serves as the basis for refining and modernizing inspection standards and procedures. MPITS also assesses the food safety and public health implications of emerging agricultural practices and technology, develops training materials and delivers training to inspection personnel, develops meat and poultry product standards, and carries out label approval and labeling policy development functions to assure that meat and poultry product labels are truthful and not misleading. The Deputy Administrator for Meat and Poultry Inspection Technical Services directs the activities of the following divisions: Facilities, Equipment and Sanitation; Industrial Engineering and Data Management; Processed Products Inspection; Program Training; Slaughter Inspection Standards and Procedures; Technology Assessment; and Standards and Labeling.

The Facilities, Equipment and Sanitation Division develops, revises, and coordinates standards for facilities, equipment, and sanitation, including lighting, ventilation, refrigeration, sanitation, pest control, and the conservation of water and energy resources. To operate under Federal inspection, plant management must submit plans of proposed facilities, equipment, sanitation programs, and water reuse to FSIS. A sanitary environment is essential to the production of wholesome products. The Division reviews and approves or rejects these plants as documented by architectural drawings or other materials. Every 4 months, it publishes a list of equipment that has been evaluated and approved for food handling. A handbook on recommended plant construction and layout that will meet sanitation requirements is also published by the Division.

The Industrial Engineering and Data Management Division participates in activities designed to enhance productivity through work measurement studies and the development of more

efficient inspection methods and workplace design. The Division also participates in the design of management information systems and the processing of production, inspection, and workload forecasting data. It provides management with the resulting statistical and other information.

The Processed Products Inspection Division is primarily responsible for establishing industry operating requirements and the inspection procedures and criteria necessary to assure that processed meat and poultry products are safe, wholesome, unadulterated, and correctly labeled.

The Division studies specific areas of processing, including general time and temperature requirements necessary to assure safe products; pasteurization; curing and drying of sausage products such as pepperoni and salami; control and use of chemical additives; treatment of pork products for possible live trichinae; and interpretation of laboratory analyses. These studies enable the Division to identify and prevent potential health hazards, and to identify and correct procedures that are likely to result in specific defects in processed products. The Division also participates in technical analysis and evaluation of situations that have involved improper heat processing procedures, malfunctioning equipment, and/or defective containers. It guides industry on the good manufacturing practices that are essential to safeguard processed products from potential hazards such as Clostridium botulinum. The Division evaluates new technology applications to assure that containers are safe and processing procedures adequate to prevent potential health hazards.

The Processed Products Inspection Division also develops guidelines for, approves or rejects, and evaluates the use of quality control systems for regulatory purposes. Quality control systems have long been used by industry to monitor critical points in processing in order to assure

consistent finished products. Systems approved by the department also generate data that demonstrate that inspection requirements for procedures, product formulation, and sanitation have been followed.

The Program Training Division participates in planning, developing, administering, and evaluating all inspection training policies and programs. The Division cooperates with other FSIS personnel, State inspection officials, industry representatives, university officials, and others in carrying out these functions. It also participates in the development of agencywide training policies and programs. The Division participates in training foreign nationals (inspection officials and employees in other countries) in conjunction with the FSIS Foreign Programs Division, the Pan American Health Organization, and other appropriate international groups. Training is conducted on the job and at the Fort Worth, Tex., training center. Educational materials are also made available for loan.

The Training Division also designs "human performance systems" to assure efficient and cost-effective implementation of inspection requirements.

The Slaughter Inspection Standards and Procedures Division designs, tests, and helps implement improved procedures for the ante-mortem and post-mortem inspection of livestock and poultry. It develops and promulgates standards and rules regarding the slaughter of food animals and disposition of carcasses and parts which are unsafe or unwholesome for food. The Division also develops procedures for maintaining product security and the control of condemned and inedible products to assure they do not enter the human food supply. It develops and implements carcass production quality control programs designed to enable meat and poultry

plants to control manufacturing defects while providing assurance to the inspection service that the product meets certain acceptable quality levels. Determining acceptable methods for the humane slaughter of livestock and establishing rules covering such practices are also within the scope of the Division. Finally, the Division identifies and evaluates existing slaughter inspection standards and procedures which need to be revised.

The Technology Assessment Division analyzes the food safety and public health implications of agricultural practices and emerging technologies. It tracks academic and industrial planning and growth, the spread of technological innovations, and relevant research. The Division recommends directions for regulatory actions, and it serves as a clearinghouse for research information. The Division also assesses worldwide technological changes affecting import-export trade.

The Standards and Labeling Division reviews all labels proposed for use on federally inspected meat and poultry products. Labels must show the product name, ingredients, name and address of the firm (manufacturer, packer, or distributor), net weight, and the inspection mark. Label reviewers make sure that the label is truthful and not misleading and that the product contains appropriate ingredients.

The Division also develops formal product standards. These standards are needed because of the increased complexity of meat and poultry products and increased attention by consumers to labels and food additives. Product standards specify the meat or poultry content and the usual ingredients of meat and poultry products.

Science

The Deputy Administrator for Science directs seven organizational units that provide analytical support and scientific guidance to the meat and poultry inspection program and other functions of FSIS. Science support services are designed to assure that meat and poultry products are safe from disease, microorganisms that cause food poisoning, harmful chemicals, and toxins. Laboratory analysis enables FSIS to detect and deter insanitary preparation. Scientific tests can also uncover economic adulteration, the substitution of cheaper or less desirable ingredients for those required. Although an economically adulterated product is not necessarily unsafe to eat, the consumer is not receiving the product for which he or she has paid.

Science cooperates with other Federal agencies (notably FDA, EPA, and the Center for Disease Control) and with State and local health authorities in carrying out its responsibilities. It develops and maintains close ties with national and international scientific communities, in order to keep abreast of scientific and technological advances and to open new avenues for the exchange of scientific information. Science also plans and coordinates a safety program for all FSIS laboratories and their personnel.

Science divisions are: Pathology and Epidemiology; Chemistry; Microbiology; Residue Evaluation and Surveillance; Field Service Laboratories; Food Ingredient Assessment; and Mathematics and Statistics.

The Pathology and Epidemiology Division develops the pathology, epidemiology, and serology programs that support meat and poultry inspection. The Division provides laboratory and investigative services, studies infectious agents associated with food, and develops serological tests for infectious and toxic agents found in meat and poultry products.

The Division also helps develop and present training programs in pathology and epidemiology for field personnel.

Diseases in animals may cause symptoms that are apparent before death, or diseases may cause changes that are apparent to someone looking for those signs after the animal has been slaughtered. The Division contributes expertise to the development of the criteria that are followed in ante-mortem and post-mortem inspection procedures. It investigates reports of specific incidents that may represent animal health problems, and it evaluates selected animal diseases and conditions that may present problems in identification or disposition.

The Division operates the Meatborne Hazard Control Center, which investigates reports of potential health hazards received from employees, State health agencies, or other Federal agencies. These incidents may be isolated, involving only one person; or they may involve large numbers of people in several States. Thus, the Center maintains close communication with appropriate Federal, State, and local health authorities in investigating reports, determining probable causes, and recommending changes in procedures or policies that would prevent recurrence of problems. The Center keeps a computerized case file of all epidemiological investigations, which enables FSIS to recognize epidemiological trends--whether they are recurrences of existing problems or emerging potential health hazards associated with meat and poultry products.

The Chemistry Division develops and improves practical analytical procedures for detecting adulterants and chemical residues in meat and poultry products, including testing and evaluating new, highly sophisticated scientific instrumentation

for use by the Field Service Laboratories Division.

The Division plans, reviews, and evaluates the chemistry program of the National Staff Laboratory in Beltsville, Md.; coordinates an accredited laboratory program; and conducts check sample programs and onsite technical reviews of chemistry field service laboratories to assure the quality and integrity of analytical results.

The Division participates with FDA in evaluating the residue analytical procedures submitted to FDA with each New Animal Drug Application (NADA). The Division also participates in methods validation, collaborative studies, and other special studies to support FSIS functions.

The Microbiology Division and its related laboratories provide analytical services to Federal, State, and local agencies and advise other Science Divisions of the significance of laboratory results. Because certain microorganisms may affect food quality or safety, microbiological analyses are important in detecting public health hazards, assessing food quality, determining the safety of food additives, detecting antibiotic residues that exceed legal limits, and detecting economic adulteration.

The Division develops economical and efficient analytical screening methods for use in both laboratories and plants. These permit optimal use of human resources and assure high levels of protection to consumers and responsiveness to industry. The Division develops or selects laboratory reference methods that will withstand scientific or legal challenge. The Division carries out special investigations on process or product safety and quality and participates with FSIS and external units in

reviewing technical information for accuracy and validity.

The Residue Evaluation and Surveillance Division develops and coordinates the FSIS role in controlling unsafe residues that may occur in meat and poultry: residues of pesticides used on crops, residues of animal drugs used to medicate animals or promote their growth, and residues of industrial chemicals or environmental contaminants that have accidentally entered the food chain.

The prevention of unsafe residues in food is a cooperative effort involving FSIS, FDA, and EPA. FDA tests the safety of animal drugs, and EPA tests the safety of pesticides and toxic substances. The two agencies prescribe the conditions under which approved drugs and chemicals may be used. They prohibit the use of any substance that may present a danger to human health, and they set maximum legal levels for residues that may be present in foods. Meat or poultry products that contain residues in levels higher than the legal limits are legally adulterated and may not be sold for food.

The Division develops residue monitoring and surveillance programs for both the domestic and import inspection programs. The residue monitoring program is designed to determine the frequency of residue occurrence in meat and poultry products. Residue surveillance programs attempt to identify the cause of specific residue problems and to provide information that will aid in correcting the problems.

The Division participates in designing and distributing the statistical sampling plans that are followed by inspectors. A statistical scheme is followed because it would be unworkable and prohibitively expensive to test every carcass for every residue

that might possibly be present. The monthly plan lists the residues for which samples are to be taken and the livestock or poultry species to be tested. The inspector sends the tissue samples collected to a laboratory for residue analysis.

The Division encourages the development of residue programs in private industry and at the State level, and cooperates with such programs; provides guidance to foreign governments on acceptable residue programs for products to be exported to the United States; and participates with the Cooperative Extension Service of the States and producer organizations to increase producer awareness of residue problems and the accompanying need to include residue control in animal management programs.

The Field Service Laboratories Division is a network of multidisciplinary laboratories strategically located to support field activities. The FSLD laboratories are located in Athens, Ga.; St. Louis, Mo.; and San Francisco, Calif. FSIS augments the analytical capacity of these laboratories by contracting with State and private laboratories.

The Division provides laboratory support in the disciplines of chemistry, microbiology, and pathology in response to the needs of the Meat and Poultry Inspection Program, the Compliance Program, and the Residue Evaluation and Surveillance Division of the Science Program. These analyses yield information that is used to determine the presence of food additives, unsafe residues, disease, or parasites in meat and poultry animals and products; or to determine that a product is economically adulterated.

The Division also reviews accredited laboratories to assure the quality and integrity of the results produced by

these analytical laboratories, which provide support to the Department but are not operated by the Department.

The Food Ingredient Assessment

Division provides analytical support, planning, and guidance in the scientific areas of nutrition and product safety. The Division evaluates the chemical safety and suitability of ingredients and food additives in association with other divisions, and it evaluates the safety of packaging materials and chemical compounds.

The Division's Nutrition Branch coordinates agency nutrition policy and serves as an information source on nutrition issues for FSIS staff. If manufacturers include nutrition information on labels on meat and poultry products, they must substantiate the accuracy of label statements with laboratory analyses on nutrient values. The Division evaluates the analytical methods used for determining these nutrient values, and it conducts food consumption analyses for estimates of human exposures to harmful substances that may be found in foods. The Division also prepares the FSIS publication, **List of Chemical Compounds**, which summarizes and classifies the nonfood chemical compounds acceptable for use in meat and poultry plants. This publication is widely used by the food industry, both here and abroad.

The Mathematics and Statistics Division provides mathematical and statistical support to ongoing FSIS functions, including meat and poultry inspection. The Division provides statistical design for laboratory studies, designs statistical sampling surveys for product standards, designs product acceptance sampling schemes, and participates in the development of residue monitoring and surveillance studies.

The Division summarizes and assists in the interpretation of data developed within the Agency, including delineating the limits of warranted inferences. The Division also reviews and evaluates scientific studies performed outside FSIS that affect FSIS regulatory responsibilities.

Units in the Office of the Administrator

The **Regulations Office** coordinates the development of all proposals, final rules, and notices published in the **Federal Register** by FSIS. The Office reviews each draft to assure that it meets the requirements for clear writing and for discussion of regulatory options. The Office maintains clearance and publications systems for bulletins, notices, and directives (program issuances). It coordinates inter- and intra-agency review of **Federal Register** documents, maintains the administrative records of all FSIS regulations, and operates the Office of the Hearing Clerk, which maintains the agency records on rulemaking proceedings.

The Review and Evaluation Staff provides an overview of the effectiveness of meat and poultry inspection programs. It also carries out special studies of scientific and technical programs in FSIS. The Staff provides summaries and analyses of review results to permit comparison of inspection effectiveness nationwide. The Staff coordinates the review program with FSIS inspection managers and designs and conducts special reviews. In addition, the Staff coordinates FSIS actions during audits by the Department's Office of the Inspector General and the General Accounting Office.

The Program Review Branch in Lawrence, Kans., carries out onsite reviews of inspection operations at federally inspected meat and poultry

plants, and conducts special projects. Reviewers visit inspection locations throughout the country to observe and report on products, inspection techniques, and slaughter and processing procedures. The Administrator and inspection managers receive periodic summaries of review program results. These summaries identify strengths and weaknesses in the inspection program, highlight trends in program effectiveness, and provide benchmarks to assure that the program is administered uniformly.

Special reviews, evaluations and analyses focus on concerns not readily addressed by the basic reviews. These special reviews include projects to assess specific problem areas, geographic or organizational units, inspection techniques, processing techniques, or other management concerns.

Part II: Domestic Program Activities

Federally Inspected Plants

Table 1 presents the number of meat and poultry slaughtering and/or processing plants that operated under Federal inspection as of September 30, 1981.

Only federally inspected plants may sell their products in interstate or foreign commerce. Talmadge-Aiken plants are federally inspected, but staffed by State employees.

TABLE 1

Type of Plant	Meat Plants	Poultry Plants	Meat/Poultry Plants	Total
Slaughtering	303	201	1	505
Processing	2,565	277	2,066	4,908
Slaughtering and processing	1,042	146	306	1,494
Subtotal	3,910	624	2,373	6,907
Talmadge-Aiken	169	5	74	248
TOTAL	4,079	629	2,447	7,155

Federally Inspected Plants by State or Territory

Table 2 presents the number of federally inspected meat, poultry, and combination meat/poultry plants that

operated under Federal inspection in each State or U.S. Territory as of September 30, 1981.

TABLE 2

State or Territory	Meat Plants	Poultry Plants	Meat/Poultry Plants	Total
Alabama	19	26	17	62
American Samoa	1	--	--	1
Arizona	11	--	10	21
Arkansas	91	40	37	168
California	386	64	319	769
Colorado	111	6	45	162
Connecticut	78	8	44	130
Delaware	3	7	2	12
District of Columbia	15	5	7	27
Florida	55	4	34	93

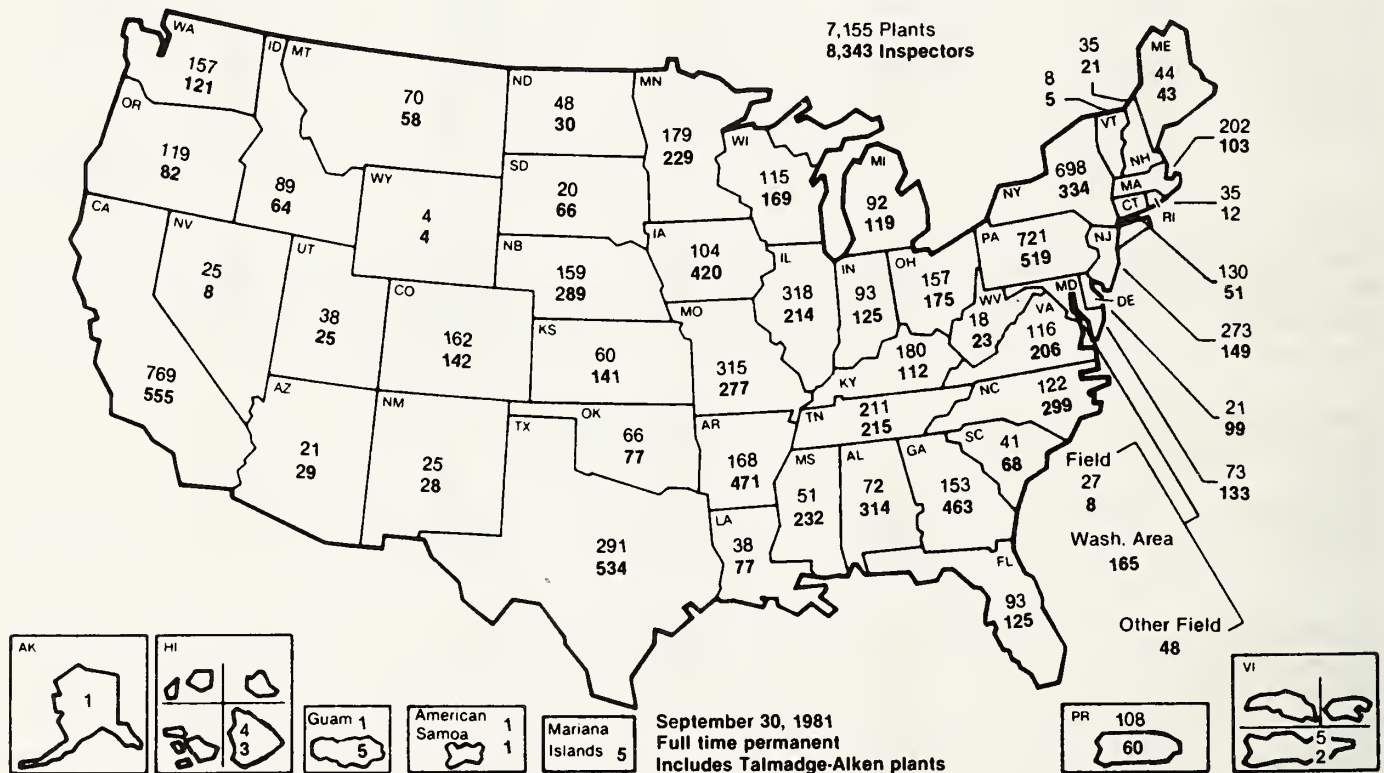
TABLE 2 (Continued)

State or Territory	Meat Plants	Poultry Plants	Meat/Poultry Plants	Total
Georgia	28	45	31	104
Guam	1	--	4	5
Hawaii	1	--	1	2
Idaho	57	--	32	89
Illinois	192	20	85	297
Indiana	48	9	30	87
Iowa	69	6	29	104
Kansas	35	1	24	60
Kentucky	125	6	49	180
Louisiana	25	4	9	38
Maine	19	4	21	44
Mariana Islands	1	--	4	5
Maryland	26	11	15	52
Massachusetts	109	18	75	202
Michigan	48	7	24	79
Minnesota	58	21	100	179
Mississippi	11	20	9	40
Missouri	198	30	87	315
Montana	24	--	46	70
Nebraska	99	8	52	159
Nevada	6	3	16	25
New Hampshire	18	3	14	35
New Jersey	157	13	103	273
New Mexico	12	--	10	22
New York	393	33	272	698
North Carolina	37	27	19	83
North Dakota	31	--	17	48
Ohio	97	14	45	156
Oklahoma	31	3	17	51
Oregon	87	4	28	119
Pennsylvania	482	55	184	721
Puerto Rico	79	2	27	108
Rhode Island	20	3	12	35
South Carolina	20	10	11	41
South Dakota	12	3	5	20
Tennessee	120	15	76	211
Texas	151	22	117	290
Utah	15	5	13	33
Vermont	2	--	6	8
Virginia	32	17	26	75

TABLE 2 (Continued)

State or Territory	Meat Plants	Poultry Plants	Meat/Poultry Plants	Total
Virgin Islands	2	--	3	5
Washington	90	9	58	157
West Virginia	8	2	8	18
Wisconsin	63	11	41	115
Wyoming	1	--	3	4
SUBTOTAL	3,910	624	2,373	6,907
Talmadge-Aiken Plants	169	5	74	248
TOTAL	4,079	629	2,447	7,155

Figure 2
Federally Inspected Plants and Inspectors by Location



Number of Livestock Federally Inspected 1979-81

Table 3 and Figure 3 summarize the number of meat animals inspected at slaughter in federally inspected plants in fiscal years 1979-81. The species listed are those legally classified as meat food animals under the Federal Meat Inspection Act.

Figure 3
Federally Inspected Livestock, 1979-1981

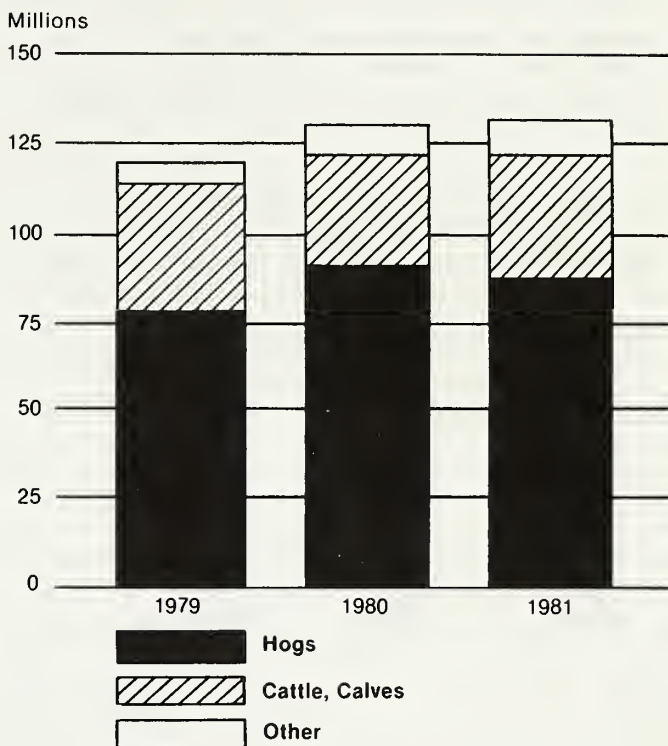


TABLE 3

SPECIES [THOUSANDS]	1979	1980	1981
Cattle	32,421	30,883	32,899
Calves	2,676	2,252	2,383
Subtotal	35,097	33,135	35,282
Hogs	78,484	90,038	88,158
Goats	77	115	79
Sheep & Lambs	4,698	5,087	5,672
Equines	333	339	281
Subtotal	5,108	5,541	6,032
TOTAL	118,689	128,714	129,472

Number of Poultry Federally Inspected 1979-81

Table 4 and Figure 4 summarize the number of poultry inspected at slaughter in federally inspected plants during fiscal years 1979 through 1981.

The species listed are legally classified as poultry for food purposes by the Poultry Products Inspection Act, except for the category "Other." That category includes rabbits and poultry species inspected under voluntary inspection programs. The Department is reimbursed for the costs of such voluntary inspection.

**Figure 4
Federally Inspected Poultry, 1979-1981**

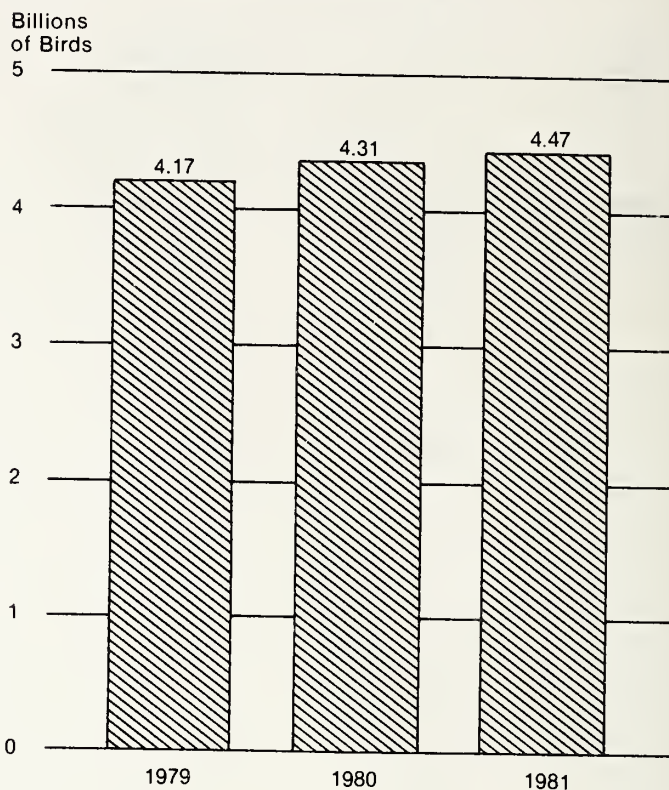


TABLE 4

CLASS	1979	1980	1981
[THOUSANDS]			
Young chickens	3,808,103	3,930,793	4,058,280
Mature chickens	200,995	204,409	205,374
Fryer-roaster turkeys	8,090	9,930	9,353
Young turkeys	132,441	147,952	153,233
Old turkeys	1,128	1,334	1,381
Ducks	17,363	16,951	17,924
Other	1,210	1,572	1,446
TOTAL	4,169,330	4,312,941	4,446,991

Processed Meat and Poultry Products Federally Inspected 1979-81

Table 5 and Figure 5 summarize the Federal inspection of processed meat and poultry products during fiscal years 1979-81. The weight figures represent the total weight of finished products, including ingredients other than meat or poultry. The figures reflect some multiple counting of complex processed products, which may require inspection at several points during processing.

Figure 5

Processed Products Federally Inspected, 1979-1981

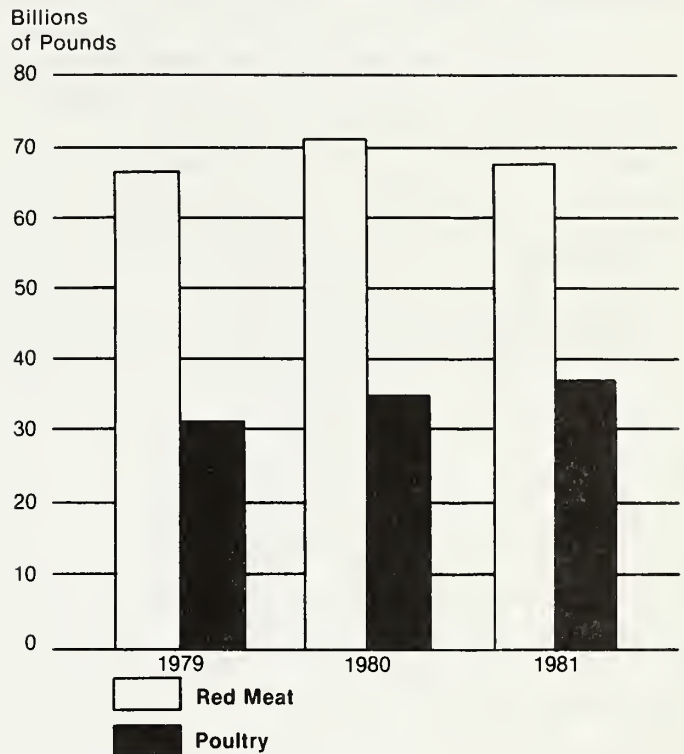


TABLE 5

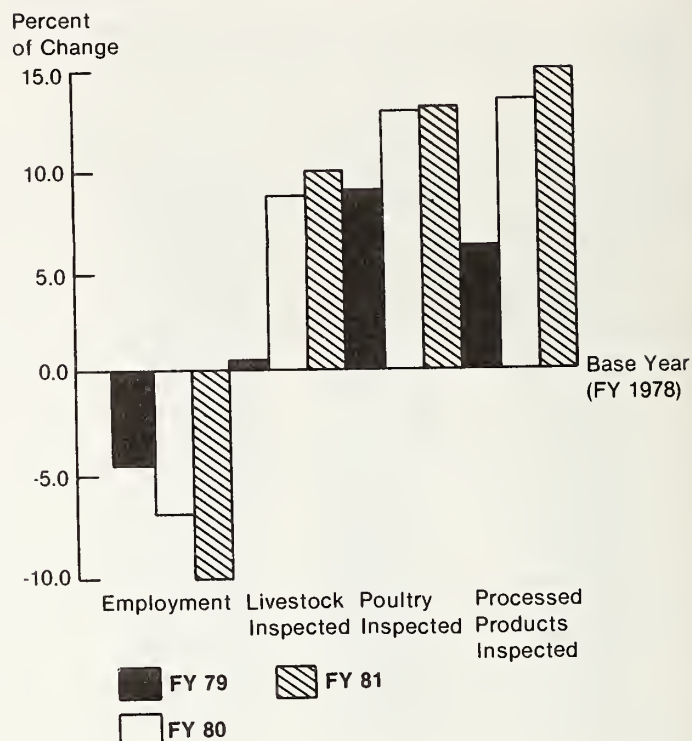
PRODUCT [MILLION POUNDS]	1979	1980	1981
Meat products	67,506	70,110	68,695
Poultry products	30,663	34,614	37,217
TOTAL	98,169	104,724	105,912

Federal Inspection Activities and Federal Employment of Inspection Personnel 1979-81

As Figure 6 illustrates, the inspection workload has increased since 1978, but Federal employment of inspection personnel has actually decreased during that period. FSIS has been able to achieve this reduction in employment by making program improvements, most notably by implementing a series of new post-mortem inspection procedures.

Figure 6

Changes in Federal Inspection and MPI Employment Level



Prior Label Approval

Table 6 summarizes the number of meat and poultry product labels that were reviewed and either accepted or not accepted by the Standards and Labeling Division of Technical Services during fiscal year 1981.

TABLE 6

Activity	Number
Labels accepted	101,280
Labels not accepted	17,260
Total labels processed	118,540

Facilities and Equipment Review

Table 7 summarizes the number of facilities and equipment specifications that were reviewed by the Facilities, Equipment and Sanitation Division of Technical Services during fiscal year 1981.

TABLE 7

Activity	Number
Blueprints of plants	2,488
Drawings of equipment	1,684

Samples Analyzed by FSIS Laboratories

Table 8 summarizes laboratory analyses of meat and poultry samples by the Science Program during fiscal year

1981. Of the samples, 104,609 were taken from processed products such as hams, sausages, cured meats, and similar items.

TABLE 8

Category of Samples and Analyses	Total
Food chemistry	93,411
Food microbiology	11,198
Chemical residues	34,485
Antibiotic residues	26,249
Pathology	12,221
Food additives and non-foods	12,001
Serology	1,446
TOTAL	191,011

Inspection Training

Table 9 illustrates the number of persons trained by the Training Division of Technical Services during fiscal years 1980 and 1981. During 1980, 872 persons participated in

training programs, and in 1981, 574 persons received training. The participants include Federal employees, State employees, university personnel, and employees of foreign governments.

TABLE 9

Persons trained	FY 1980	FY 1981
Federal employees	720	557
State employees	116	15
University and foreign personnel	36	2
TOTAL	872	574

Table 10 illustrates the number of employees who were reached by correspondence courses and audiovisual

programs distributed by FSIS training officials during fiscal years 1980 and 1981.

TABLE 10

Type of training	FY 1980	FY 1981
Correspondence course (total)	1,191	1,542
Basic educational skills	937	1,057
Technical subjects	254	485
Audiovisual programs	5,113	4,173

Compliance Activities

Approximately 14,000 meat and poultry product handlers are periodically reviewed by Compliance officers. Adjustable risk categories determine the frequency of scheduled reviews;

additional reviews are conducted randomly. Total reviews for fiscal year 1981 numbered over 44,000. Table 11 summarizes related enforcement actions.

TABLE 11

Action	Number	Pounds
Detentions of suspect product	690	6,547,000
Monitoring of product recalls	6	648,300
Court seizures initiated by Compliance	2	4,400
Irregularities reported to inspection supervisors	1,116	
Cases prepared by Compliance	502	
Cases referred to Inspector General	20	
Cases requiring consultation with General Counsel	177	
Letters of warning issued	680	

State Program Data

Table 12 summarizes the number of States at the end of fiscal year 1981 with intrastate inspection programs for meat (29) and poultry (23); the number of State program employees as of September 30, 1981; and Federal funding assistance expended by States during fiscal year 1981. "M" after the name of the State indicates that the State conducted a meat inspection program; "M & P" indicates that the State conducted meat and poultry inspection programs.

In order to continue operating State inspection programs for intrastate plants, and in order to continue receiving Federal funding assistance, States must maintain inspection requirements at least equal to those of the Federal program. (See part I for a discussion of "at least equal to" inspection.) During 1981, 1,498 intrastate plants were reviewed by Circuit Supervisors in accordance with the requirements of the Federal inspection laws. In addition, the Review and Evaluation Staff conducted an oversight review of 484 intrastate plants.

TABLE 12

State	PLANTS			EMPLOYEES			BUDGET
	Under Official Inspection	Exempt From Inspection	Total	Full- time	Part- time	Total	Fy 1981 Federal Funding Assistance Expended
Alabama M&P	123	53	176	61	2.0	63.0	846,890
Alaska M&P	(17)	(1)	(18)	(9)	(10.0)	(19.0)	241,584
Arizona M&P	66	33	99	35	2.3	37.3	464,925
Arkansas M&P3/	101	70	171	60	2.0	62.0	540,731
California D-EX1/		396	396				---
Delaware M&P	8	3	11	11	3.0	14.0	150,127
Florida M&P	301	82	383	141	0.0	141.0	1,592,635
Georgia M	176	61	237	128	2.8	130.8	1,672,046
Hawaii M&P	71	1	72	47	2.0	49.0	651,246
Idaho M&P3/	77	86	163	40	9.0	49.0	475,000*
Illinois M&P	547	51	598	198	3.3	201.3	2,204,265
Indiana M&P	192	65	257	106	1.0	107.0	1,386,789
Iowa M&P	206	227	433	50	0.0	50.0	702,187
Kansas M&P	190	43	233	80	7.5	87.5	930,001
Louisiana M&P	172	80	252	117	20.0	137.0	1,473,804
Maryland M&P	61	25	86	45	6.0	51.0	750,180
Michigan M2/	354	54	408	125	0.0	125.0	2,190,387
Minnesota D-EX1/	D	446	446	37	0.0	37.0	---
Mississippi M&P	94	28	122	82	5.0	87.0	838,421
New Mexico M&P	37	38	75	15	2.0	17.0	227,327
N. Carolina M&P	258	110	368	156	29.0	185.0	1,772,357
Ohio M&P	413	163	576	210	9.0	219.0	2,492,654
Oklahoma M&P	140	143	283	96	1.3	97.3	1,059,203
R. Island M&P2/	31	4	35	5	6.0	11.0	111,596
S. Carolina M&P	120	0	120	63	25.0	88.0	841,670
S. Dakota M	51	94	145	30	0.0	30.0	255,758
Texas M&P	534	181	715	280	0.0	280.0	3,273,000*
Utah M	42	66	108	28	18.3	46.3	435,450
Vermont M&P	25	39	64	16	2.0	18.0	202,884
Virginia M&P	31	140	171	55	4.5	59.5	795,119
W. Virginia M	51	61	112	36	0.0	36.0	498,546
Wisconsin M&P	314	178	492	112	7.0	119.0	1,598,092
Wyoming M&P	24	35	59	8	1.0	9.0	---
TOTAL M&P	4,649	2,901	7,550	2,382	170.0	2,552.0	30,674,874

1/ California and Minnesota-exempt plants only are reviewed by states.

2/ Designated during FY 1982.

3/ Designated during FY 1981.

* Estimate.

**Dates USDA Assumed Intrastate
Inspection**

Table 13 lists the dates the Department
assumed inspection in designated

States. See Part I for an explanation
of designation.

TABLE 13

State	Meat	Poultry
Arkansas	6-1-81	1-2-71
California	4-1-76	4-1-76
Colorado	7-1-75	1-2-71
Connecticut	10-1-75	10-1-75
Georgia		1-2-71
Idaho	7-1-81	1-2-71
Kentucky	1-14-72	7-28-71
Maine	5-12-80	1-2-71
Massachusetts	1-12-76	1-12-76
Michigan	10-3-81	1-2-71
Minnesota	5-16-71	1-2-71
Missouri	8-18-72	8-18-72
Montana	4-27-71	1-2-71
Nebraska	10-1-71	7-28-71
Nevada	7-1-73	7-1-73
New Hampshire	8-7-78	8-7-78
New Jersey	7-1-75	7-1-75
New York	7-16-75	4-11-77
North Dakota	6-22-70	1-2-71
Oregon	7-1-72	1-2-71
Pennsylvania	7-17-72	10-31-71
Rhode Island	10-1-81	10-1-81
South Dakota		1-2-71
Tennessee	10-1-75	10-1-75
Utah		1-2-71
Washington	6-1-73	6-1-73
West Virginia		1-2-71

Talmadge-Aiken Plants

Table 14 presents the number of meat and poultry plants that were inspected under Talmadge-Aiken agreements as of September 30, 1981. The

Department is responsible for inspection in such plants. However, Federal inspection is carried out by State employees.

TABLE 14

State	Meat Plants	Poultry Plants	Combination Plants	Total
Alabama	6	--	4	10
Alaska	1	--	--	1
Delaware	8	--	1	9
Georgia	38	--	11	49
Hawaii	2	--	--	2
Illinois	16	1	4	21
Indiana	3	--	3	6
Maryland	9	1	11	21
Michigan	13	--	--	13
Mississippi	8	--	3	11
New Mexico	1	--	2	3
North Carolina	32	--	7	39
Ohio	--	1	--	1
Oklahoma	5	--	10	15
Texas	--	--	1	1
Utah	3	--	2	5
Virginia	24	2	15	41
TOTAL	169	5	74	248

Part III: Foreign Program Activities

The information in Part III is presented on a calendar year basis, as required by law.

The data relate to foreign meat plants and meat imports. Although no formal report on poultry product imports is required by the Poultry Products Inspection Act, it should be noted that these imports are controlled under regulations virtually identical to those applied to meat imports. Only limited quantities of poultry products, mainly specialty items, are imported into the United States. Canada, France, Hong Kong, and Israel are eligible to export poultry products to the United States.

An explanation of the procedures used by the Foreign Programs Division in reviewing foreign plants is included in Part I.

Countries Eligible to Export to United States

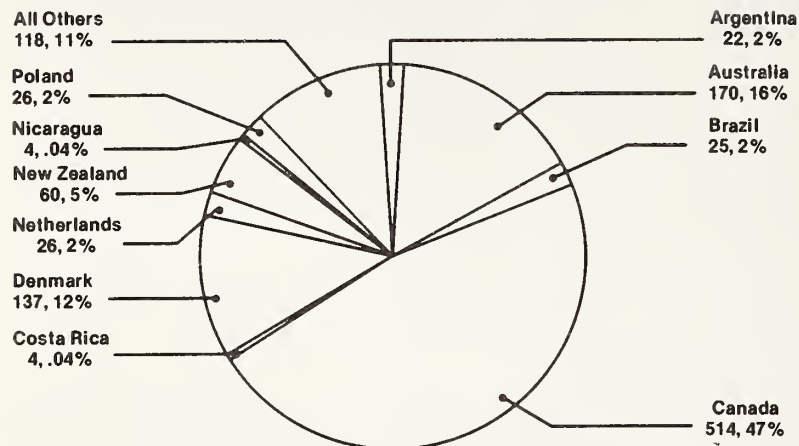
Only those countries which have meat inspection systems with standards at least equal to those of the U.S. meat inspection program are permitted to ship meat to the United States. There were 45 such countries at the beginning of 1981.

The following countries are eligible to export meat and meat products to the United States:

Argentina	France	Northern Ireland
Australia	Germany (Federal Republic)	Norway
Austria	Guatemala	Panama
Belgium	Haiti	Paraguay
Belize	Honduras	Poland
Brazil	Hungary	Romania
Bulgaria	Iceland	Scotland
Canada	Ireland (Eire)	Spain
Colombia	Italy	Sweden
Costa Rica	Japan	Switzerland
Czechoslovakia	Luxembourg	Taiwan
Denmark	Mexico	Uruguay
Dominican Republic	Netherlands	Venezuela
El Salvador	New Zealand	Yugoslavia
England and Wales	Nicaragua	
Finland		

Figure 7

Number of Plants in Leading Export Countries - 1,106



Number Of Inspectors In Foreign Plants

There were 8,677 meat inspectors licensed by foreign countries to inspect meat and meat products prepared in foreign plants certified for export to the United States. This number varies from country to country, depending on the number of certified plants and the volume of U.S. imports from each country.

The inspection in certified plants is continuous during preparation of products destined for export to the United States, except for small-volume (nonslaughtering) processing operations controlled by patrol visits. Processing plants receiving patrol inspections use only products of animals slaughtered under continuous inspection.

The number of inspectors in certified plants, by country, during calendar year 1981 was as follows:

Argentina	359	Hungary	58
Australia	1,765	Iceland	12
Belgium	30	Ireland	90
Belize	4	Italy	6
Brazil	361	Mexico	12
Bulgaria	16	Netherlands	220
Canada	1,464	New Zealand	1,667
Costa Rica	21	Nicaragua	44
Czechoslovakia	23	Panama	12
Denmark	1,215	Poland	815
Dominican Republic	12	Romania	101
El Salvador	11	Switzerland	12
France	44	Taiwan	15
Germany, Federal Republic	18	Uruguay	107
Guatemala	20	Yugoslavia	99
Haiti	5		
Honduras	39		

**Foreign Plants Authorized to Export
Products to United States, Summary by
Country**

Austria, Colombia, England,
Finland, Japan, Luxembourg, Northern
Ireland, Paraguay, Scotland, Spain,

Sweden, and Venezuela are not listed
here since they elected not to certify
any plants to the United States for the
calendar year 1981.

TABLE 15

Country	Authorized Plants on 01/01/81	Plant Authorizations Removed	Plants Granted Authorizations	Rejected in CY 1981 and later Reinstated	Authorized Plants on 12/31/81
Argentina	23	6	2	3	22
Australia	187	39	14	8	170
Belgium	5	1	0	1	5
Belize	1	1	0	0	0
Brazil	23	4	4	2	25
Bulgaria	1	0	0	0	1
Canada	510	43	35	12	514
Costa Rica	4	0	0	0	4
Czechoslovakia	2	0	0	0	2
Denmark	137	0	0	0	137
Dominican Republic	3	1	1	1	4
El Salvador	0	0	2	0	2
France	17	0	3	0	20
Germany, Federal Republic	8	0	0	0	8
Guatemala	4	2	1	0	3
Haiti	1	0	0	0	1
Honduras	7	0	0	0	7
Hungary	5	0	0	0	5
Iceland	2	0	1	0	3
Ireland	4	1	0	0	3
Italy	3	0	4	0	7
Mexico	0	1	3	0	2
Netherlands	32	13	4	3	26
New Zealand	56	3	5	2	60
Nicaragua	7	4	0	1	4
Panama	2	1	1	0	2
Poland	26	0	0	0	26
Romania	4	0	0	0	4
Switzerland	11	3	4	1	13
Taiwan	1	0	0	0	1
Uruguay	11	0	1	0	12
Yugoslavia	12	0	0	0	12
TOTAL	1,109	123	85	34	1,105

Plants Removed from Authorized List, by Country

Reasons for withdrawal include normal attrition, plant management decision to withdraw from U.S. market, or

determination by foreign government that plants do not comply with U.S. standards.

TABLE 16

COUNTRY	Complies with FMIA	Did Not Comply w/FMIA	Not Reviewed by USDA. Compliance w/FMIA Undetermined	Total Plants Removed
Argentina	2	2	2	6
Australia	18	10	11	39
Belgium	-	1	-	1
Belize	1	-	-	1
Brazil	2	1	1	4
Canada	7	20	16	43
Dominican Republic	-	1	-	1
Guatemala	1	1	-	2
Ireland	1	-	-	1
Mexico	-	1	-	1
Netherlands	5	6	2	13
New Zealand	1	2	-	3
Nicaragua	2	1	1	4
Panama	-	1	-	1
Switzerland	-	3	-	3
TOTAL	40	50	33	123

**Plants Visited by FSIS Reviewers and
Removed for Failure to Meet USDA
Standards**

Table 17 includes all foreign plants
actually visited by USDA inspectors

and found not in compliance with the
Federal Meat Inspection Act.

TABLE 17

Country	Inspection Deficiencies	Sanitation Deficiencies	Construction and Equip- ment Defi- ciencies	Adulterated Product	Combination of Two or More Items in Columns 1-4	Total Rejected
Argentina	-	-	-	-	2	2
Australia	-	-	-	-	10	10
Belgium	-	-	-	-	1	1
Brazil	-	-	-	-	1	1
Canada	-	-	-	-	20	20
Dominican Republic	-	-	-	-	1	1
Guatemala	-	-	-	-	1	1
Mexico	-	1	-	-	-	1
Netherlands	-	1	-	-	5	6
New Zealand	-	-	-	-	2	2
Nicaragua	1	-	-	-	-	1
Panama	-	-	-	-	1	1
Switzerland	-	-	-	-	3	3
TOTAL	1	2	-	-	47	50

Inspection of Meat Products on Entry

A meat inspection certificate issued by the responsible official of the exporting country must accompany each shipment of meat offered for entry into the United States. The certificate identifies the product by origin, destination, shipping marks, and amounts. It certifies that the meat comes from animals that received veterinary ante-mortem and post-mortem inspection; that it is wholesome, not adulterated or misbranded; and that it is otherwise in compliance with U.S. requirements.

As a further check on the wholesomeness of the meat, U.S. inspectors at the port of entry inspect part of each shipment. To assure that a representative sample is selected, statistical sampling plans are applied to each lot of product to be inspected. The sampling plans and criteria for acceptance or rejection of imports are the same as those used for U.S. federally inspected meat.

Meat imports are monitored for biological residues from such sources as pesticides, hormones, heavy metals, and antibiotics. Special control measures are in effect for handling imported meat with excessive amounts of residues. The procedures include refusing or withholding entry of product until results of laboratory analyses are received.

The computer based Import Information System (IIS) compiles port-of-entry product inspection and laboratory sampling histories for every eligible foreign establishment. The scope and extent of import inspection assignments issued to import inspectors through the IIS computer terminals located at the major ports are based upon the foreign establishment's cumulative compliance listing stored in IIS.

Figure 8

Volume of Product by Leading Import Countries - 1,802,420,323

Volume figures in millions

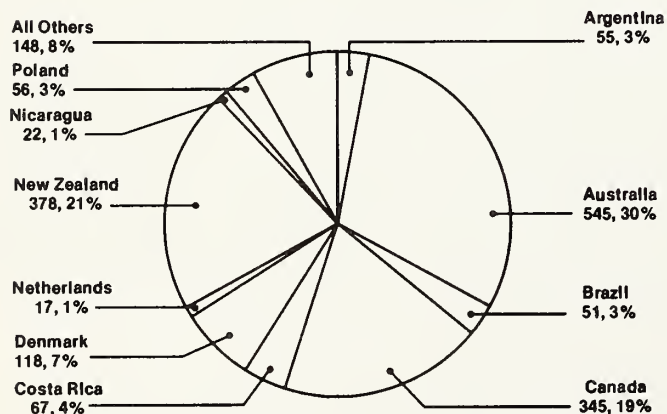
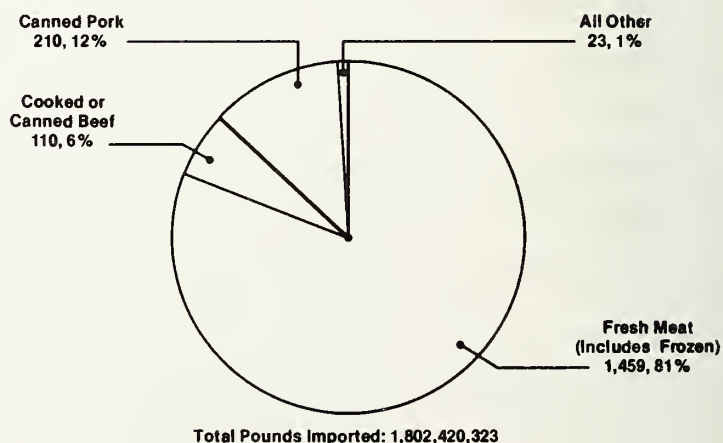


Figure 9

Types of Imported Product

Volume figures in millions



Product Passed for Entry

Tables 18-22 show the total pounds of products imported into the United States from each eligible foreign

country and itemizes each major category of products permitted entry, January through December 1981.

TABLE 18

Country of Origin	Pounds of Fresh Meat and Edible Organs						
	B e e f				V e a l		
	Manufact- uring	Carcasses and Cuts	Head Meat and Tongue	Edible Organs	Manufact- uring	Carcasses and Cuts	Edible Organs
Argentina	0	0	0	0	0	0	0
Australia	471309254	61874266	1205775	15788	5830358	96412	390133
Belgium	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0
Belize	102774	8693	0	0	0	0	0
Bulgaria	0	0	0	0	0	0	0
Canada	84469359	30520303	2667262	335371	3227	7299	0
Costa Rica	46123867	20774351	0	4410	72754	31024	0
Czechoslovakia	0	0	0	0	0	0	0
Denmark	5992225	39720	0	0	0	0	0
Dominican Rep.	5053937	5099029	0	0	0	0	0
El Salvador	271739	133514	0	0	0	0	0
France	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0
Guatemala	7602871	3291119	0	0	0	0	0
Haiti	2299800	8001	3275	2725	0	0	0
Honduras	35560664	14619309	72664	16857	0	0	0
Hungary	0	0	0	0	0	0	0
Iceland	0	0	0	0	0	0	0
Ireland	5282289	74340	0	0	0	0	0
Italy	0	0	0	0	0	0	0
Mexico	1586160	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0
New Zealand	306769051	29309532	207066	0	9088040	3564478	179655
Nicaragua	13846056	7969341	0	0	0	0	0
Panama	2847988	1535697	0	0	0	0	0
Poland	0	0	0	0	0	0	0
Romania	0	0	0	0	0	0	0
Switzerland	0	0	0	0	0	0	0
Taiwan	0	0	0	0	0	0	0
Uruguay	0	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0	0
TOTAL	989118034	175257215	4156042	375151	14994379	3699213	569788

TABLE 19

Country of Origin	Pounds of Fresh Meat and Edible Organs					
	-----Mutton and Lamb-----			-----Pork-----		
	Manufact- uring	Carcasses and Cuts	Edible Organs	Manufact- uring	Carcasses and Cuts	Edible Organs
Argentina	0	0	0	0	0	0
Australia	2242342	1189085	9030	66040	400656	0
Belgium	0	0	0	0	0	0
Brazil	0	0	0	0	0	0
Belize	0	0	0	0	0	0
Bulgaria	0	0	0	0	0	0
Canada	0	31305	900	69845956	143985043	159530
Costa Rica	0	0	0	0	0	0
Czechoslovakia	0	0	0	0	0	0
Denmark	0	0	0	5557472	19039052	0
Dominican Rep.	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0
France	0	0	0	0	0	0
Germany	0	0	0	0	0	0
Guatemala	0	0	0	0	0	0
Haiti	0	0	0	0	0	0
Honduras	0	0	0	0	0	0
Hungary	0	0	0	0	0	0
Iceland	0	23030	72260	0	0	0
Ireland	0	0	0	0	0	0
Italy	0	0	0	0	0	0
Mexico	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0
New Zealand	112218	27962681	12893	37800	0	0
Nicaragua	0	0	0	0	0	0
Panama	0	0	0	0	0	0
Poland	0	0	0	0	0	0
Romania	0	0	0	0	0	0
Switzerland	0	0	0	0	0	0
Taiwan	0	0	0	0	0	0
Uruguay	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0
TOTAL	2354560	29206101	95083	75507268	163424751	159530

TABLE 21

Country of Origin	Pounds of Canned Meat					
	Corned Beef	Other Beef	Ham-- Under 3 lbs.	Ham-- 3-6 lbs.	Ham-- Over 6 lbs.	Picnic Hams
Argentina	18131815	2681184	0	0	0	0
Australia	142447	0	0	0	0	0
Belgium	0	0	0	0	653448	1157958
Brazil	40749927	3622691	0	0	0	0
Belize	0	0	0	0	0	0
Bulgaria	0	0	0	0	58104	23544
Canada	0	88	146004	34361	1366379	0
Costa Rica	0	0	0	0	0	0
Czechoslovakia	0	0	32760	0	2878100	312040
Denmark	0	0	2553929	598180	56045633	5911450
Dominican Rep.	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0
France	0	0	0	0	0	0
Germany	0	0	0	0	0	0
Guatemala	0	0	0	0	0	0
Haiti	0	0	0	0	0	0
Honduras	0	0	0	0	0	0
Hungary	0	0	769668	196740	8890189	4302732
Iceland	0	0	0	0	0	0
Ireland	0	0	0	0	0	0
Italy	0	0	0	0	0	0
Mexico	0	0	0	0	0	0
Netherlands	0	0	1390326	186012	8254707	2730118
New Zealand	620657	0	0	0	0	0
Nicaragua	0	0	0	0	0	0
Panama	0	0	0	0	0	0
Poland	0	0	889778	6539633	37215277	7683872
Romania	0	0	0	0	6092360	4265729
Switzerland	0	0	0	0	0	0
Taiwan	0	0	20736	0	846308	420744
Uruguay	3219038	576410	0	0	0	0
Yugoslavia	0	0	366248	37224	18791792	1937481
TOTAL	62863884	6880373	6169449	7592150	141092297	28745668

TABLE 20

Country of Origin	Cured Beef	Cured Pork	Sausage (Trichina- treated)	Cooked Beef (Restricted)	Other Cooked Beef	Misc.	Horse Meat
Argentina	39352	0	0	0	33277907	677899	0
Australia	10800	0	0	0	485498	183333	0
Belgium	0	0	0	0	0	0	0
Brazil	36000	0	0	0	6231185	148958	0
Belize	0	0	0	0	0	0	0
Bulgaria	0	0	0	0	0	0	0
Canada	0	2344096	0	0	0	8659635	5400
Costa Rica	0	0	0	0	0	0	0
Czechoslovakia	0	0	0	0	0	0	0
Denmark	0	1458517	0	0	0	6119471	0
Dominican Rep.	0	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0
Germany	0	99807	0	0	0	206168	0
Guatemala	0	0	0	0	0	7251	0
Haiti	0	0	0	0	31475	363083	0
Honduras	0	0	0	0	0	0	0
Hungary	0	0	0	0	0	382576	0
Iceland	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	110675	0
Italy	0	0	0	0	0	0	0
Mexico	0	0	0	0	0	0	0
Netherlands	0	334480	0	0	0	0	0
New Zealand	39086	0	0	0	0	3512	260
Nicaragua	0	0	0	0	0	0	0
Panama	0	0	0	0	0	0	0
Poland	0	0	0	0	0	0	0
Romania	0	0	0	0	0	25220	0
Switzerland	0	2534	0	0	0	17281	0
Taiwan	0	720	0	0	0	0	0
Uruguay	0	0	0	0	49373	1609	0
Yugoslavia	0	0	0	0	0	0	0
TOTAL	125238	4240154	0	0	40075438	16906671	5660

TABLE 22

Country of Origin	Other Canned Pork	Chopped Ham Luncheon	Other Canned Meat	Total Pounds Passed for Entry
Argentina	0	0	0	54808157
Australia	0	6298	0	545457515
Belgium	0	0	18024	1829430
Brazil	0	68400	0	50857161
Belize	0	0	0	111467
Bulgaria	0	0	0	81648
Canada	0	0	968633	345550151
Costa Rica	0	0	0	67006406
Czechoslovakia	0	0	0	3222900
Denmark	1013252	13296617	52389	117677907
Dominican Rep.	0	0	0	10152966
El Salvador	0	0	0	405253
France	0	0	583624	583624
Germany	0	0	6098	312073
Guatemala	0	0	0	10901241
Haiti	0	0	0	2708359
Honduras	0	0	0	50269494
Hungary	1659864	7584	1539	16210892
Iceland	0	0	0	95290
Ireland	0	0	166068	5633372
Italy	0	0	101676	101676
Mexico	0	0	0	1586160
Netherlands	250020	4034407	26539	17206609
New Zealand	0	0	1910	377908839
Nicaragua	0	0	0	21815397
Panama	0	0	0	4383685
Poland	516714	2812546	0	55657820
Romania	1251152	1677632	285240	13597333
Switzerland	0	0	0	19815
Taiwan	0	0	0	1288508
Uruguay	0	0	0	3846430
Yugoslavia	0	0	0	21132745
TOTAL	4691002	21903484	2211740	1802420323

Product Refused Entry

Tables 23-27 show the total pounds of products from each eligible country and itemizes each major category of

imports refused entry and/or condemned, January through December 1981.

TABLE 23

Country of Origin	Pounds of Fresh Meat and Edible Organs						
	B e e f				V e a l		
	Manufact- uring	Carcasses and Cuts	Head Meat and Tongue	Edible Organs	Manufact- uring	Carcasses and Cuts	Edible Organs
Argentina	0	0	0	0	0	0	0
Australia	1483030	94698	19962	0	55020	0	0
Belgium	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0
Belize	0	0	0	0	0	0	0
Bulgaria	0	0	0	0	0	0	0
Canada	993127	72981	16265	53	15	72	0
Costa Rica	1362931	68043	0	0	0	0	0
Czechoslovakia	0	0	0	0	0	0	0
Denmark	39000	0	0	0	0	0	0
Dominican Rep.	57840	78847	0	0	0	0	0
El Salvador	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0
Guatemala	40380	34036	0	0	0	0	0
Haiti	0	3530	0	0	0	0	0
Honduras	460800	39169	2280	0	0	0	0
Hungary	0	0	0	0	0	0	0
Iceland	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0
Mexico	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0
New Zealand	149100	0	0	0	37800	0	0
Nicaragua	224760	113967	0	0	0	0	0
Panama	52200	38702	0	0	0	0	0
Poland	0	0	0	0	0	0	0
Romania	0	0	0	0	0	0	0
Switzerland	0	0	0	0	0	0	0
Taiwan	0	0	0	0	0	0	0
Uruguay	0	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0	0
TOTAL	4863168	543973	38507	53	92835	72	0

TABLE 24

Country of Origin	Pounds of Fresh Meat and Edible Organs					
	-----Mutton and Lamb-----			-----Pork-----		
	Manufact- uring	Carcasses and Cuts	Edible Organs	Manufact- uring	Carcasses and Cuts	Edible Organs
Argentina	0	0	0	0	0	0
Australia	240780	65185	0	0	29870	0
Belgium	0	0	0	0	0	0
Brazil	0	0	0	0	0	0
Belize	0	0	0	0	0	0
Bulgaria	0	0	0	0	0	0
Canada	0	54	0	782277	515537	38350
Costa Rica	0	0	0	0	0	0
Czechoslovakia	0	0	0	0	0	0
Denmark	0	0	0	128981	186097	0
Dominican Rep.	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0
France	0	0	0	0	0	0
Germany	0	0	0	0	0	0
Guatemala	0	0	0	0	0	0
Haiti	0	0	0	0	0	0
Honduras	0	0	0	0	0	0
Hungary	0	0	0	0	0	0
Iceland	0	0	9380	0	0	0
Ireland	0	0	0	0	0	0
Italy	0	0	0	0	0	0
Mexico	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0
New Zealand	0	92302	0	0	0	0
Nicaragua	0	0	0	0	0	0
Panama	0	0	0	0	0	0
Poland	0	0	0	0	0	0
Romania	0	0	0	0	0	0
Switzerland	0	0	0	0	0	0
Taiwan	0	0	0	0	0	0
Uruguay	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0
TOTAL	240780	157541	9380	911258	731504	38350

TABLE 25

Country of Origin	Cured Beef	Cured Pork	Sausage (Trichina- treated)	Cooked Beef (Restricted)	Other Cooked Beef	Misc.	Horse Meat
Argentina	0	0	0	0	361990	392	0
Australia	0	0	0	0	0	0	0
Belgium	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0
Belize	0	0	0	0	0	0	0
Bulgaria	0	0	0	0	0	0	0
Canada	0	45921	0	0	0	74105	0
Costa Rica	0	0	0	0	0	0	0
Czechoslovakia	0	0	0	0	0	0	0
Denmark	0	415	0	0	0	20448	0
Dominican Rep.	0	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0
Guatemala	0	0	0	0	0	0	0
Haiti	0	0	0	0	0	33320	0
Honduras	0	0	0	0	0	0	0
Hungary	0	0	0	0	0	0	0
Iceland	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0
Mexico	0	0	0	0	0	0	0
Netherlands	0	126	0	0	0	0	0
New Zealand	0	0	0	0	0	0	0
Nicaragua	0	0	0	0	0	0	0
Panama	0	0	0	0	0	0	0
Poland	0	0	0	0	0	0	0
Romania	0	0	0	0	0	2214	0
Switzerland	0	0	0	0	0	84	0
Taiwan	0	0	0	0	0	0	0
Uruguay	0	0	0	0	76109	0	0
Yugoslavia	0	0	0	0	0	0	0
TOTAL	0	46462	0	0	438099	130563	0

TABLE 26

Country of Origin	Pounds of Canned Meat					Picnic Hams
	Corned Beef	Other Beef	Ham-- Under 3 lbs.	Ham-- 3-6 lbs.	Ham-- Over 6 lbs.	
Argentina	213553	2464	0	0	0	0
Australia	7197	0	0	0	0	0
Belgium	0	0	0	0	0	0
Brazil	910854	31908	0	0	0	0
Belize	0	0	0	0	0	0
Bulgaria	0	0	0	0	0	0
Canada	0	0	0	0	19232	0
Costa Rica	0	0	0	0	0	0
Czechoslovakia	0	0	0	0	10396	3800
Denmark	0	0	36	0	258939	107850
Dominican Rep.	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0
France	0	0	0	0	0	0
Germany	0	0	0	0	0	0
Guatemala	0	0	0	0	0	0
Haiti	0	0	0	0	0	0
Honduras	0	0	0	0	0	0
Hungary	0	0	0	0	12	0
Iceland	0	0	0	0	0	0
Ireland	0	0	0	0	0	0
Italy	0	0	0	0	0	0
Mexico	0	0	0	0	0	0
Netherlands	0	0	0	0	35507	22068
New Zealand	0	0	0	0	0	0
Nicaragua	0	0	0	0	0	0
Panama	0	0	0	0	0	0
Poland	0	0	5686	16935	192605	122638
Romania	0	0	0	0	237920	252791
Switzerland	0	0	0	0	0	0
Taiwan	0	0	0	0	4076	28110
Uruguay	4842	0	0	0	0	0
Yugoslavia	0	0	28984	0	135050	19866
TOTAL	1136446	34372	34706	16935	893737	557123

TABLE 27

Country of Origin	Other Canned Pork	Chopped Ham Luncheon	Other Canned Meat	Total Product Entry
Argentina	0	0	0	578399
Australia	0	0	3600	1999342
Belgium	0	0	0	0
Brazil	0	0	0	942762
Belize	0	0	0	0
Bulgaria	0	0	0	0
Canada	0	0	76	2558065
Costa Rica	0	0	0	1430974
Czechoslovakia	0	0	0	14196
Denmark	0	155688	12093	909547
Dominican Rep.	0	0	0	136687
El Salvador	0	0	0	0
France	0	0	6736	6736
Germany	0	0	0	0
Guatemala	0	0	0	74416
Haiti	0	0	0	36850
Honduras	0	0	0	502249
Hungary	25200	0	0	25212
Iceland	0	0	0	9380
Ireland	0	0	0	0
Italy	0	0	0	0
Mexico	0	0	0	0
Netherlands	0	52322	0	110023
New Zealand	0	0	0	279202
Nicaragua	0	0	0	338727
Panama	0	0	0	90902
Poland	0	18989	0	356853
Romania	39220	51918	0	584063
Switzerland	0	0	0	84
Taiwan	0	0	0	32186
Uruguay	0	0	0	80951
Yugoslavia	0	0	0	183900
TOTAL	64420	278917	22505	11281706

Reason for Rejection of Product

Meat and poultry shipments found unacceptable during routine import inspection are refused entry at the port. During 1981, adulteration with extraneous material was the principal defect found in fresh meat products.

In addition, shipments of meat and poultry products are sampled and subsequently tested for presence of biological residues. As in the FSIS domestic residue monitoring system, individual shipments of product are not required by regulation to be held pending laboratory test results. If a laboratory reports a residue violation on a monitoring sample, efforts are made to locate any part of the shipment that may have already entered commercial channels. Product recovered is returned to the owner and refused entry.

During 1981, 5,263 routine residue monitoring samples were collected and submitted for laboratory analysis. Of these, 12 were found to contain violative levels of biological residues. These violative samples were drawn from import shipments totaling 437,781 pounds. FSIS was successful in refusing entry on 60,309 pounds located in various port storage facilities. The remaining 377,472 pounds of product had moved into commercial distribution and, consequently, could not be traced.

Other defects for each product type are listed below in order of their frequency as recorded during inspection.

Type of Imported Product and Reasons for Rejection

Fresh Beef and Veal

1. Adulteration with hair, bone, and extraneous material

2. Bruises and blood clots
3. Ingesta
4. Pathological lesions
5. Decomposition
6. Biological residues

Fresh Mutton and Lamb

1. Adulteration with wool, bone, and extraneous material
2. Pathological lesions
3. Ingesta
4. Bruises
5. Biological residues

Canned Beef

1. Unsound cans (flippers, springs, swellers, damaged seams)
2. Short weight
3. Adulteration with extraneous material
4. Noncompliance with standards of composition
5. Biological residues

Canned Pork and Other Canned Meat

1. Unsound cans
2. Adulteration with extraneous material
3. Short weight
4. Failure to meet composition standards
5. Undercooked
6. Biological residues

Cooked Beef

1. Insufficiently cooked (quarantine violation from foot-and-mouth infected countries)
2. Adulteration with extraneous material
3. Decomposition
4. Biological residues

Horsemeat (Fresh and Canned)

1. Adulteration with extraneous material
2. Noncompliance with standards
3. Container defects
4. Pathological lesions
5. Decomposition
6. Labeling marking
7. Biological residues

Part IV: Initiatives and Accomplishments

75th Anniversary of the Federal Meat Inspection Act

USDA marked the 75th anniversary of the passage of the Federal Meat Inspection Act of 1906 with a year-long schedule of activities. The highlight was a special ceremony at USDA in June which was attended by representatives of Congress, and industry, farm, professional, and consumer groups.

Guest speakers included Deputy Secretary of Agriculture Richard Lyng, Rep. Thomas S. Foley of Washington, Ellen Haas of the Community Nutrition Institute, and Hugo Slotkin of John Morrell and Co.

Awards were presented to the winners of the first annual food safety poster contest for school children sponsored by USDA. The contest was held to help prevent food poisoning by teaching children--among the most likely victims--about food safety. Educational packets were sent to every elementary school in the country, and 45,000 entries were received.

The Smithsonian Institution also developed an exhibition commemorating the Meat Inspection Act which was displayed in September. Supermarket chains around the Nation joined in the celebration by noting the anniversary in food advertisements.

The regional Meat and Poultry Inspection offices coordinated exhibits at schools, trade meetings, civic organizations, and shopping areas.

Advisory Committee on Meat and Poultry Inspection

The Secretary of Agriculture appointed 17 new members to the National Advisory Committee on Meat and Poultry Inspection. They represent

scientific and public health organizations, Federal and State government agencies, academic circles, and various private interest and trade groups.

Required by law, the Advisory Committee counsels USDA on matters affecting meat and poultry inspection programs. The Committee's charter was established in 1971 and later reestablished in 1978.

The Advisory Committee serves as USDA's link with outside groups. Every effort is made to gain national geographic distribution on the committee, as well as a divergence of backgrounds and expertise, to achieve a broadly balanced membership. The Committee meets on a regular basis with FSIS officials to discuss proposed regulations and other issues before the Agency and to advise the Agency on these issues.

Consumer Response System

During 1981, FSIS received approximately 2,400 inquiries through its Consumer Response System. This was a significant increase over the several hundred inquiries handled in the previous year.

The thrust of the Consumer Response System is to provide consumers with a single telephone number to call or address to write in case of problems or questions about the safety, wholesomeness, or labeling of meat and poultry products.

Only if the question is outside FSIS' jurisdiction is the call referred, and then the consumer is directed to the proper agency. FSIS tracks inquiries to make sure consumers get prompt and efficient service.

Inspection Improvements

FSIS is continuing to develop new procedures for inspecting meat and poultry that will improve the program and increase efficiency. With these new methods of inspection, the program will be better able to deal with ongoing changes in industry and livestock production.

The volume of product inspected by FSIS has steadily increased in recent years. Although red meat slaughter has remained relatively steady, the amount of poultry slaughtered has been rising, and there has been a 50 percent increase since 1975 in the amount of processed meat and poultry products inspected. At the same time, trends are occurring that permit changes in the way inspection is conducted. The technology developed for processing meat and poultry products has given plants much better control of their operations and the inspection program can take advantage of this. Further, disease conditions in livestock are changing and diseases which were once prevalent are no longer a problem. Instead, inspectors must be alert to the presence of drug and chemical residues in meat and poultry.

The structure of the industry is changing as well. Large integrated slaughter and processing plants located in metropolitan areas have given way to separate facilities, with slaughter operations relocated near livestock-raising areas and new processing operations constructed in urban areas. New slaughter plants, especially for cattle, are more automated and can operate at much higher speeds than before.

These developments have set the stage for new inspection methods which increase inspector productivity and meet the needs of a modernized industry while continuing to provide a high level of consumer protection.

Livestock Inspection

In July 1981, FSIS revised staffing standards in cattle slaughter plants, which significantly improved inspector productivity. The new standards resulted in the elimination of 40 positions in these plants and these inspectors were reassigned to plants where they were more needed. The Agency is also testing more efficient slaughter inspection procedures for cattle to determine if additional positions can be eliminated on the faster, more modern slaughter lines.

In September, new swine inspection procedures were begun in larger hog slaughtering plants. The tasks performed by the inspectors were modified and examinations now take less time. Inspectors are also aided by a mirror which eliminates the need for them to turn the carcass in order to check it. Over 100 inspector positions will be eliminated by these new procedures. In smaller plants, agency studies have shown that inspector productivity can often be increased by improving the layout of the inspection area.

Poultry Inspection

Working with the industry, FSIS tested machinery that would open poultry carcasses and eliminate inspector hand motions. The prototype machine has not, to date, proven satisfactory, but tests are planned with other types of bird opening machines as the industry develops them.

A feasibility study on the use of flock testing for inspecting young chickens is continuing at Tuskegee Institute. The researchers will attempt to identify characteristics of a flock and its environment that can be used to accurately predict the health of the

entire flock before slaughter. Such information might be used to adjust the intensity of post-mortem slaughter procedures to the conditions of a particular flock. The Agency is also testing new turkey inspection methods which would allow greater plant productivity during peak slaughter periods.

Animal Disease Reporting System

A modernized livestock disease reporting system was tested in 1981 and will become part of the inspection program in 1982. The system will provide a fuller picture of the Nation's livestock health which will be useful to USDA, other Government agencies, agricultural researchers, and the livestock industry.

The reporting system will provide more information on the incidence of various animal diseases and their geographic distribution, the emergence of new diseases, and a basis for determining whether a disease is still a problem in livestock populations. FSIS will use this information to develop new inspection procedures based on the national animal health situation.

Quality Control Inspection

Nearly 50 meat and poultry processing plants are approved to participate in the Voluntary Total Quality Control Inspection System which was implemented in 1980. Participation is voluntary, and the Agency works with trade organizations and individual plants to provide information and assistance in setting up quality control systems. A guidebook was published to assist smaller firms.

The Quality Control Inspection system enables FSIS to take advantage of the industry technology and make inspection more efficient. Plants have developed quality control systems to control costs and assure consistency in their products. In the systems,

plants collect data during all stages of production on such things as plant sanitation, the condition of ingredients, cooking times and temperatures, and finished product content and weight. In a good quality control system, a plant prevents problems during the processing operation, rather than having to detect them afterward. Corrections can be made during processing and to assure product meets specifications.

The information generated by the systems will be used by FSIS inspectors in determining if a product complies with the safety and labeling requirements of the inspection laws. Plants that wish to participate in Total Quality Control Inspection submit their quality control systems to FSIS for review. Inspection officials review the system to assure it is designed to produce products which will meet the requirements of the inspection laws. FSIS also makes an extensive onsite review of the plant and evaluates the plant's past performance record.

In approved plants, the FSIS inspector monitors the plant quality control system to make sure it is operating correctly. Verification samples are taken for testing in USDA laboratories. If the inspector finds discrepancies in application of the system or between the plant data and the USDA findings, the plant is notified. If the problem is not corrected, or if a plant markets adulterated or mislabeled product, FSIS can withdraw approval of the plant for participation in quality control inspection.

Realignment of Field Staff

A nationwide realignment of the meat and poultry inspection program's field supervisory and management structure was completed in 1981. Significant management improvements were made in program operation, and program costs were reduced. As a result, the

inspection program can more effectively and efficiently carry out inspection responsibilities in some 7,000 meat and poultry plants across the country.

The field structure is made up of inplant inspectors, circuit supervisors, area offices, and regional offices. Over the years, the concentrations of plants shifted and workloads at the various levels became imbalanced.

The realignment effort began about 5 years ago with an extensive review of the existing structure. When it was finalized, supervisory workloads were distributed more equitably, and the Agency was able to reduce the number of area units from 35 to 27 and the number of circuits from 235 to 199. As a result, the Agency will realize \$1 million in cost savings annually.

In implementing the realignment, new systems were designed for data collection which permit ongoing adjustments and will reduce the need for large-scale realignments in the future. FSIS has already benefited when several hundred plants had to be integrated into the Federal system in 1982 because of the closings of State inspection programs.

Sodium

Since evidence exists of a link between sodium intake and hypertension, the public is becoming increasingly interested in knowing the sodium content of various foods. In some cases, manufacturers voluntarily list the amounts of sodium in their products. Sodium labeling of meat and poultry products under the jurisdiction of FSIS is required only if the product label makes specific nutritional claims such as "lower in salt" or "lightly salted."

FSIS is carrying out a four-point sodium program. The program calls for:

--Encouraging industry to increase sodium labeling and marketing of meat and poultry products with lower sodium contents;

--Beginning a research program to develop safe and palatable reduced-sodium meat and poultry products;

--Providing information to the public about sodium;

--Monitoring the sodium content of products under FSIS jurisdiction.

FSIS has formed a task force to make recommendations on sodium policy, and is working closely with industry and other Government agencies. FSIS and USDA's Agricultural Research Service (ARS) have agreed that ARS will begin research on reducing the sodium content of processed meat and poultry products while maintaining product safety and quality. FSIS also is developing a publication with the Food and Drug Administration that will provide general information on sodium to the public.

Mechanically Processed (Species) Product

In July 1981, FSIS proposed to change the composition, labeling, and use requirements for Mechanically Processed (Species) Product (MP(S)P) in an effort to expand the use of the product.

Industry had requested changes, contending that the existing regulations have hampered production and marketing of the product. Industry sources estimate that full use of mechanically processed product could increase the red meat supply by about 350 million pounds annually.

MP(S)P is produced from red meat animals such as cattle and hogs. Beef or pork carcasses or parts are

hand-trimmed of meat before being broken up and pushed under high pressure against specialized screens with pinpoint openings. The openings allow meat, along with a small amount of finely powdered bone, to pass through. The product differs from hand-trimmed meat in its consistency and in its content of certain minerals and bone. Before the current regulations took effect in 1978, an expert panel of Government scientists reviewed the product and concluded it could be used safely if properly regulated.

The proposed new regulation would not change the present limits on bone particle size, content, or protein quality, and would continue the prohibition against using the product in baby foods. The changes proposed include changing the name to one less burdensome and more descriptive, and revising some labeling requirements.

Exports of Meat and Poultry

FSIS has broadened its assistance to meat and poultry producers in the United States who want to market their products in foreign countries. The Export Coordination Staff helps reduce the barriers to exports which result from regulations and other restrictions of foreign countries.

The staff maintains close contact with inspection officials in other countries as well as with other U.S. Government agencies, trade organizations, and the industry. FSIS officials have held discussions with representatives of several countries in an attempt to facilitate certification of American products for export to these countries. As a result, some procedures have been simplified, common understandings have been reached that enhanced the free flow of trade, and communication channels have been opened that have fostered the resolution of other problems as well.

A key accomplishment was successful discussions with the European Economic Community (EEC), which resulted in re-examination by the Europeans of new regulations which would have halted most U.S. meat exports to the member countries.

Review of Foreign Inspection Systems

An FSIS task force is developing procedures that will help the Agency better assess meat inspection programs in foreign countries which export to the United States. Plants exporting meat to this country are required by law to be approved by USDA.

A 1979 agency study made far-reaching recommendations for revamping the structure and underlying philosophy of the foreign meat and poultry inspection system, which has historically focused on review of individual plants. The study called for more objective measures of program performance and better data systems. Further, it recommended that import inspection efforts be redirected toward determining the reliability of a country's regulatory program.

During 1981, an agency task force wrote guidelines for developing procedures to assess foreign inspection programs. These guidelines will be used in determining the adequacy and effectiveness of regulatory and inspection program systems in foreign countries.

The task force working to implement the 1981 report will develop risk categories and profiles for eligible countries, which will be used to determine the frequency and intensity of onsite and point-of-entry inspection for plants in those countries. The Agency has already established the Automated Import Information System (AIIS) at U.S. ports of entry. The AIIS centralizes data collection, so

FSIS has more complete compliance histories and more consistent sampling policies. This system is an essential component of the overall plan for improving the foreign inspection program.

Strengthened Controls on Imported Meat

During 1981, an incident involving the importation of mislabeled and adulterated meat from Australia resulted in FSIS detaining and sampling nearly 66 million pounds of boneless beef from that country. Shipments labeled as beef were found to contain horse meat and kangaroo meat. The problem was traced to plants in the State of Victoria, and most of the product has been cleared and allowed to enter U.S. commercial channels. To prevent a similar occurrence in the future, FSIS is implementing a comprehensive program to strengthen controls on meat imports.

The Australian Meat Incident

In July, an FSIS inspector retained and sampled three frozen blocks of boneless beef, based on their abnormal appearance. Tests confirmed that horse meat had been substituted for beef. With the aid of the Australian Government, FSIS traced the problem to a meat substitution scandal in the State of Victoria, operating outside the controls of Australia's Federal inspection system.

When the problem first became known, FSIS asked USDA's Office of the Inspector General (OIG) to investigate the matter. Also, FSIS set up an internal Board of Inquiry to examine the Agency's response to the incident as well as the adequacy of U.S. import inspection laws, procedures, and policies.

In August, after laboratory tests confirmed that adulterated shipments from the Australian plant in question had entered the United States as early as January 1981, Secretary of Agriculture John Block announced a series of steps to prevent mislabeled, uninspected, or otherwise adulterated meat from entering this country. The first step--the impoundment and testing of all Australian boneless beef in this country--was designed to determine if the problem was more widespread. Within several days, FSIS had located nearly 66 million pounds of the product.

Other steps outlined by the Secretary included 1) requiring Australia to begin a species testing program on exports of boneless meat to the United States and to keep the meat under security until it reached this country; 2) holding Australian boneless meat at U.S. ports until its species was confirmed; 3) requiring other exporting countries to initiate a species testing program; 4) spot-checking for species all boneless meat entering U.S. ports; and 5) reviewing compliance activities in major exporting countries.

FSIS released most of the impounded meat on September 4. Product from Victoria--representing about 19 percent of the impounded Australian product--remained under U.S. control because FSIS found horse meat in product from a second plant in that State. All incoming Victoria product became subject to intensified inspection, while other Australian product was handled under an interim species monitoring program at U.S. ports. FSIS sampled the Victoria product on a plant-by-plant basis, and as tests on a firm's product confirmed its species as beef, the meat was allowed to enter U.S. commercial channels.

Throughout the incident, FSIS laboratories conducted 1,800 species determination tests on samples of Australian product. To increase species testing capabilities, the Agency set up an Accredited Laboratory Program, which allowed private laboratories to perform the tests. FSIS is studying methods to expand and improve methods for species determination.

By November, the Australian Government had fully implemented a U.S.-approved program to strengthen controls over the movement, inventory, and storage of export product, including a pre-export species testing program. In November, FSIS notified all other export countries to submit information on controls and laws in their systems to prevent the substitution of illegally prepared meat. The Agency will use this information to conduct extensive reviews of the systems. Countries were also required to submit plans for pre-export species testing programs to supplement and verify the effectiveness of their controls.

The FSIS Plan To Strengthen Controls On Imported Meat

Using the steps announced by the Secretary as a basis, FSIS developed a plan integrating all phases of boneless meat inspection. The plan strengthens requirements on exporting countries and tightens controls on product entering U.S. ports. Also, to ensure the integrity of domestic boneless meat destined for U.S. and foreign commerce, the plan includes more stringent controls on boneless meat produced in this country.

FSIS implemented a species identification monitoring program at U.S. ports on November 10. In 1982, the Agency will explore an "early warning system" which would provide automatic and systematic review of

inspection findings exceeding predetermined defect levels for countries or plants. It would also include histories of defects that may indicate that the meat was prepared illegally. Also, present inspection procedures--in which the intensity of inspection is adjusted based on a firm's history of compliance with U.S. requirements--will be reviewed, and revised if necessary.

In early 1982, the Agency will implement a species monitoring program for domestic product. Also planned is a thorough review of U.S. controls for boneless meat moving in domestic food distribution channels. In the spring, FSIS will begin training to strengthen an inspector's ability to recognize indicators of illegally prepared meat.

Contamination Response System

The FSIS Contamination Response System (CRS) provides an integrated system for responding quickly and efficiently to problems involving drug and chemical residues in the food supply.

The system has four basic elements: 1) it defines conditions that help FSIS determine the extent of the contamination, 2) it lays out a systematic process by which the Agency can proceed from initial detection of an environmental contaminant to full mobilization to control and eliminate it, 3) it cites specific responsibilities for each component of the system and, 4) it provides for activation of an Agencywide Contamination Response Team reporting to the Administrator whenever mobilization to control and eliminate contamination of the food supply becomes necessary.

FSIS coordinates its activities with other Federal agencies, as well as with State agencies.

In fiscal year 1981, 100 cases, with a potential multimillion dollar economic impact on the food industry, were handled under CRS. Planning was also begun on an automated information management system for CRS. Such a system will aid FSIS in tracking residue problems and will enhance the speed with which the Agency can act in case of a major contamination problem.

National Residue Program

An important part of the inspection program is the testing of meat and poultry for drug and chemical residues which could pose a danger when eaten by consumers. If residues are found at levels above legal limits established by the Food and Drug Administration and the Environmental Protection Agency, the product is adulterated and cannot be marketed. FSIS does routine monitoring of the food supply for residues and also conducts surveillance testing in specific cases when violations are suspected.

FSIS continues to cooperate with industry and producer groups to help prevent illegal residues from occurring, to bring any problems under control quickly, and to prevent any resulting financial losses to producers.

In 1981, FSIS and USDA's Extension Service began working with producer organizations to develop a new approach to the problem of residues in meat and poultry. The goal of the Total Residue Avoidance Program is to build prevention into all stages of production so that unmanageable problems can be averted. An essential part of the program will be cooperative educational campaigns by Federal, State, and local organizations.

Swab Test On The Premises (STOP)

The Swab Test on the Premises Program--which tests carcasses for antibiotics--has been successful in leading to a dramatic decline in residue violations in dairy cows.

Before the program began, USDA and dairy associations cooperated in an educational program to help producers prevent antibiotic residues in cattle they marketed. As soon as the testing program began, violations started to decline. In 1980, only 1.2 percent of the animals tested were violative, compared to 3.7 percent in 1978, before STOP began.

This year the kit for STOP was improved to make it more efficient and less expensive to use. The greatest savings is in costs for shipping kits to the more than 400 plants where testing is conducted. The new kits do not require refrigeration, so the materials can be distributed every 6 months instead of bimonthly.

Live Animal Swab Test (LAST)

FSIS scientists have developed an important new test that will permit producers to perform a test similar to STOP on live animals on the farm. If farmers find violative levels of residues, they can delay marketing until the level diminishes and the meat is safe to eat. Testing by the Agency showed that this Live Animal Swab Test (LAST) works well in checking animals for antibiotic drug residues.

During 1981, FSIS ran field trials and worked with several companies which are now prepared to sell supplies for the LAST test. FSIS is developing a handbook for producers and veterinarians and will work with the Cooperative Extension Service and producer organizations to introduce the test to producers.

Sulfonamide Residues

Nationwide, the violation rate for sulfonamides in swine still remains low--under 4 percent. Credit for bringing down the violation rate from a high of more than 14 percent in 1978 can be attributed to the 18-month joint campaign conducted in 1978 and 1979 by USDA, industry, and swine and feed organizations.

Since then, however, violation rates have remained high in a few states. In those areas, FSIS has cooperated with the Extension Service and State agencies in localized educational efforts, followed by intensified monitoring to pinpoint the cause of the problem.

New Sulfonamide Tests

This year FSIS chemists developed two new analytical tests for sulfonamides. Both new tests can detect and reliably measure drug residues at the legal tolerance level of 0.1 parts per million.

One of the tests will be for routine monitoring. The other, which is more expensive and time consuming, will be used to confirm the identity of the sulfonamide, when necessary.

Additional Tests For Residue Detection

A 1980 report by the General Accounting Office indicated that the Government needed new tests so more kinds of toxic substances could be detected.

One new test, developed by FSIS, can identify and quantify residues of the wood preservative pentachlorophenol (PCP). This commonly used substance is toxic in humans, causing liver damage and possibly sterility. Once the procedure is evaluated, FSIS could conduct a survey to find the extent of the problem in meat and poultry. The

Canadian Government already has moved to restrict use of PCP.

Another new test developed by FSIS scientists detects an antibiotic called chloramphenicol, which has been banned from use in food animals. The drug can cause aplastic anemia in humans. The new method has been evaluated and is in use in FSIS Field Service Laboratories.

Accredited Laboratories Program Improved

In 1981, FSIS proposed to formalize the standards used to accredit non-USDA laboratories for performing official tests on meat and poultry products. The Accreditation Program is a convenience for meat and poultry plants because they can pay for testing at a nearby laboratory instead of having samples shipped to an FSIS Field Laboratory. The program also reduces costs and workload for the Agency, bringing an annual savings estimated at more than \$500,000 for testing 30,000 official samples.

FSIS accredits non-USDA laboratories to test animal tissues for residues of specific hazardous chemicals or to analyze processed products for content. Content analysis is done to verify compliance with standards set by regulation. For example, hot dogs are tested for moisture and fat.

In addition, steps are being taken to improve the Agency's ability to evaluate each laboratory's performance. Changes in data evaluation make it possible to detect problems quickly and correct them. While the performance of some of the nearly 300 accredited laboratories has improved, two have lost their accreditation and can no longer perform official tests. The efficiency of the inspection process has been improved by strengthening this program.

Salmonella Control

In response to several outbreaks of food poisoning caused by salmonellosis from roast beef, FSIS took steps to make more information available to inspectors and food handlers and to make sure processing plants are following proper procedures in preparing roast beef.

Prior to these outbreaks in the Northeast Region, the last salmonella problem attributed to roast beef occurred in 1978. At that time, the inspection regulations were amended with new time and temperature requirements for cooking roast beef. FSIS officials believe that current regulations and guidelines, if followed properly, are adequate to control salmonella. Investigation of the 1981 outbreaks indicated the problem was probably caused by improper handling of the product after it was cooked or by improper refrigeration after it left the plant.

In response, FSIS took several actions:

- An educational campaign was developed for plant operators stressing the importance of plant sanitation, and special training materials on sanitation and handling practices were developed for FSIS inspectors.

- Informational materials are being developed for food handlers working in establishments such as restaurants.

- A special nationwide review of roast beef production and handling practices was begun.

- Regulations and guidelines were reviewed to improve and clarify them.

- A national monitoring program for roast beef was begun to assure that standards are being met.



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